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ADDRESS  
TO THE  
ROYAL GEOGRAPHICAL SOCIETY  
OF LONDON;

*Delivered at the Anniversary Meeting on the 25th May, 1846,*

BY THE  
RIGHT HON. LORD COLCHESTER, CAPT. R.N., &c.,  
PRESIDENT.

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GENTLEMEN,—In compliance with the custom established by my learned predecessors in this chair, it now becomes my duty to endeavour to place before you the progress made in geographical knowledge during the past year; and although this period may not have been distinguished by any important discoveries, yet we shall find a steady advance in the more exact examination of countries already known to us, as well by the prosecution of scientific surveys under the direction of their Governments, as by the explorations of private individuals; and expeditions are in progress which, if blessed with success, may add materially to our knowledge of regions hitherto untrdden by civilised man, and perhaps solve questions of geography long the subject of inquiry and debate. I allude more particularly to the projected journeys of Mr. Duncan and Lieutenant Ruxton in Africa, of Mr. Brockman in Southern Arabia, of Captain Sturt's and Dr. Leichhardt's exploration of the interior of Australia; and to the expedition under Sir John Franklin, to demonstrate the practicability of a north-west passage from the Atlantic to the Pacific Oceans, an expedition in the success of which we must all take so deep an interest.

But before proceeding to details, I must pause for a moment to pay our tribute of respect to the memory of those of our members, distinguished for their exertions in the cause of science, as well as of eminent foreign geographers, who have been taken from us during the past year. Happily the list is small.

## OBITUARY.

Hugh Murray, Esq., the first to whom I must allude, was one of the most distinguished members of our Society for his zeal and industry in the cause of geographical science. His first work was an enlargement and completion of 'Dr. Leyden's Historical Account of Discoveries and Travels in Africa,' which appeared in 1817. He next published 'Account of Discoveries and Travels in Asia;' this appeared in 1820; and nine years afterwards was followed by 'Discoveries and Travels in America.' His great work, however, and that on which his fame will chiefly rest, was his 'Encyclopædia of Geography,' which appeared in 1834. The geographical portion of this is understood to have been written entirely by himself, and would therefore be alone a sufficient monument of the extent of his reading and research, and of his indefatigable industry; but his exertions stopped not here; more than 15 volumes of Oliver and Boyd's 'Edinburgh Cabinet Library' were either partly or entirely written by him; as the History of British India, the Account of China, of British America, and of the United States. For the same work he wrote the historical part of the Polar Seas and Regions, the descriptive account of Africa, and an enlarged edition of the travels of Marco Polo. Mr. Murray was also a Fellow of the Royal Society of Edinburgh.

Henry Gally Knight, Esq., M.P. for South Notts, another of our members, was distinguished by his love of the fine arts. In early life, when war in Europe and the unsettled state of the East rendered foreign travel a work of danger as well as difficulty, Mr. Gally Knight spent more than two years in visiting Spain, Sicily, Egypt, Syria, and Greece; and later in life he visited Normandy, Italy, and again Sicily, with a view to ecclesiastical architecture, especially that of the Normans, and his work entitled the 'Normans in Sicily,' and still more that on the 'Ecclesiastical Architecture of Italy from the Time of Constantine to the 15th Century,' are monuments of his liberality as well as of his taste. Mr. Gally Knight was also a member of the Royal and Antiquarian Societies.

Of foreign geographers, we have to lament the loss of Mr. David Warden, one of the founders and most zealous supporters of the Geographical Society of Paris. Mr. Warden was a man of deep and varied learning, and the author of several original works; among the principal of which may be named 'An Account of the United States of North America, published in English, French, and German;' 'An Account of the Antiquities of North America,' and a similar work on Mexican Antiquities.

Admiral Otto von Kotzebue, the Russian circumnavigator, has lately died at a very advanced age; and we have finally to deplore the early

loss of Dr. Herman Bobrick, of Koningsberg, in Prussia, who had just given earnest of important labours in the field of ancient geography, by his publication on the geography of Herodotus.

#### ENGLISH PUBLICATIONS.

Sir John Barrow, to whose early exertions the existence of our Society is so much indebted, and with whose various works you are all well acquainted, has just added to their number by an interesting account of the Voyages and Discoveries within the Arctic Regions, a subject with which no one can by possibility be better, if so well, acquainted. We learn with satisfaction that Dr. Falkenstein, of Dresden, one of our learned honorary members, is about to make known Sir John Barrow's work to his countrymen, by translating it into German.

Mr. Frederick Parrott's journey to and ascent of Mount Ararat, forming the 1st volume of the 'World Surveyed in the 19th Century,' has also appeared, and displays the critical ability and industry of its editor, Mr. Cooley, to whose undertaking, for the sake of science, we wish every success.

Since our last anniversary has also appeared the great work of Sir R. I. Murchison, M. E. de Verneuil, and Count A. Keyserling, on the Geology of Russia in Europe and the Ural Mountains. Although this work is principally directed to the consideration of another science than that which we here profess, and one on which I should feel myself quite incompetent to dilate, yet the value of this production as a work containing many important facts belonging to physical geography, properly so called, and as a proof of the energy of its authors in the prosecution of their researches, would render it inexcusable in me if I had omitted to recall your attention to it, more especially as it reflects honour on ourselves, proceeding in great part from an actual President of this Society.

Other works have also been published here, some of which I shall notice when speaking of the countries to which they relate.

#### OUR OWN LABOURS.

With regard to our own proceedings, I will enumerate the papers that have been read at our evening meetings since the last anniversary, some of which have already been published in our Journal.

On the geography of *Asia* you have heard the very detailed description of the province of Khúzistán, in Persia, a document of great interest, both from its account of the several tribes inhabiting that part of the country and from its minute geographical details of a province to the very heart of which a British steamer, the *Assyria*, under the command of Lieutenant W. B. Selby, I.N., has been navigated, and which, from

this circumstance and the proximity of our own territory in the East, may at some future time prove of great importance.

With regard to *Africa*, the greater part of the information we have received has been with reference to the West Coast; thus you have heard an abridgment of the account given by Mr. Wm. Cooper Thomson, of his journey from Sierra Leone to Timbo, the capital of Fulah Jallo—an account which sets forth in the most striking manner the treacherous character of the coast Mandingos, and the obstacles which, from jealousy and interested motives, they throw in the way of those European travellers who would pass through their country into the interior.

Descending southward, we come to Ashantee and Dahomey, the scene of Mr. Duncan's explorations, and from that bold pioneer we have received two communications, to which you have listened with much interest; the first describing his journey from Cape Coast to Whyddah, and the second relating the unexpected feat by which he succeeded in travelling from Whyddah through the Dahomey country to Adoofoodiah, a town placed by him in  $13^{\circ} 6' \text{ N.}$  and  $1^{\circ} 3' \text{ E.}$  Mr. Duncan is now preparing to set out on a fresh journey from the coast, expecting to be able to penetrate to Timbuctoo, and from thence descend the Niger to Rabbah, thus completing what remains unknown of the course of that river.

From Lieutenant Ruxton you have had an account of his visit to Ichabo and his land journey on the neighbouring coast. Short as untoward circumstances rendered this traveller's operations, he still had time to improve our maps by the expunging from them of what is laid down as the Fish River, running into Angra Pequena, and which has no existence. The detailed account of Lieutenant Ruxton's short and all but fatal trip, is inserted at length in the 'Nautical Magazine for January.' Lieutenant Ruxton is about to start again on a second attempt to penetrate from the western coast of Africa, quite across the continent to its eastern coast; and, as Her Majesty's Government have referred to this Society for its opinion of the advantages of such an exploration, and the Council have forwarded in reply their strong opinion in its favour, we may hope that Mr. Ruxton will receive such a sanction of his proceedings as will facilitate his proposed undertaking.

On this same west coast of Africa the geography of the Jamoor river has been corrected by a note and plan of Mr. John Clark, communicated to us by Mr. Joseph Angas, while Captain Grover has favoured us with an account of the Island of Arguin, and excited your lively interest in the fate of our countrymen captured by its ruthless pirates.

With regard to the south-eastern coast of Africa, Mr. Cooley, with his accustomed ability, has endeavoured to settle the question of the geography of Nyassi, or the Great Lake of Southern Africa. As this paper

has now been some time in your hands, I need say no more respecting it than that, considering the imperfect data from which Mr. Cooley had to draw his conclusions, and from the ambiguity and confusion of the statements he had to reconcile, he has arrived at a conclusion which, if not absolutely correct when first made, has, by subsequent *éclaircissements* furnished by him, been rendered quite satisfactory. A lengthened review of this dissertation has already appeared in the 'Nouvelles Annales des Voyages,' for last November.

You have heard Mr. Peter Masters's account of the *Gulf of Mexico* and of the navigation of the river Tobasco, as also his description of Tampico and of the towns in its vicinity; a most valuable document, as containing the observations of a practical man on the currents of the gulf: an object of such importance to our navigators, that that particular portion of Mr. Masters's memoirs was communicated by us to the 'Nautical Magazine,' where it was presumed it would be seen by a greater number of mariners.

In *North America* we have been enabled, by a paper of Mr. Isbister, to give a sketch of Peel river, by which you have been informed not only of the nature of that river but also of the geological character and the productions of the extreme northern portion of the Rocky Mountains.

On the subject of *Australia*, you have heard Mr. Eyre's reasons against the supposed existence of a great inland sea, reasons which though specious are hypothetical, and for that reason have not been yet admitted to a place in our journal; and we may hope that the undaunted zeal of Captain Sturt may be rewarded by enabling him to throw more light on this important question in the journey which he is still prosecuting with such unwearied energy.

Of the tribes inhabiting the northern coast of Australia Mr. W. Earl has given you some interesting notices, which in due time will appear in print. The same gentleman has already enriched our last volume with his account of the physical structure and arrangement of the islands of the Indian Archipelago; and from Captain Sturt you have had a statement of his explorations as far as the 28th parallel in 141° 45' E. Finally, Lieutenant Christopher has endeavoured to explain the phenomena of coral islands and reefs in a paper which has been read to you; and Lieutenant Spratt has furnished a short but interesting article of ancient geography, confirming the history of the canal of Xerxes across the isthmus of Mount Athos.

#### MARITIME SURVEYS.

HOME.—The importance to the world in general, and to our own country especially, of maritime surveys, entitle them to the first place in our consideration.

Commander Sheringham, in H.M.S. Dasher, is still proceeding with his elaborate and beautiful survey to the westward of the Southampton Water, and out to the Needles and Shingles.

Captain Bullock, in H.M.S. Porcupine, is completing the examination of the Downs, having already demonstrated the singular fact that the long sand called 'The Brake,' has moved bodily to the westward. When the weather is unsuitable to sea-work, he occasionally prosecutes the examination of those rivers on the Essex coast which are connected with the former survey of the Thames.

Captain Stanley, in H.M.S. Blazer, has been sedulously at work during the winter, and has finished the plans of the rivers Stour and Deben. When the season opens he will gradually proceed with the survey of the great banks of the North Sea.

Commander Otter, in H.M.S. Sparrow, having completed the N. coast of Scotland to its western extremity, Cape Wrath, in spite of the inclement weather which pervades all that forbidding region, will now proceed in continuation to survey the W. coast of Scotland with the Isles of Skye and Lewis.

Mr. Thomas, in H.M.S. Mastiff, is slowly but accurately advancing with the survey of the Orkney group of islands, which the severity of the climate and the continual gales of wind render a work of more than common difficulty and labour.

Commander Robinson, in H.M.S. Shearwater, is still in the river Clyde and its adjacent lochs, but will soon proceed towards the Mull of Cantire.

Captain Beechey, in H.M.S. Firefly, having made an admirable survey of the northern portion of the Irish Channel, is rapidly drawing that of its southern division towards a conclusion.

Commander Frazer, in H.M.S. Lucifer, having carried his excellent survey of the E. coast of Ireland as far to the southward as Wexford, with all its dangerous outlying banks, is about to proceed round the S.E. angle of the island, to the examination of the Saltees group of islets and the coast near Waterford.

Commander Wolfe, having done full justice to the estuary of the Shannon and to the Bay of Bantry, as well as to the harbours of Kinsale and Cork, is now going to undertake the connecting intervals of coast between all those places.

Commander Bedford and his party, in hired vessels and boats, are prosecuting the survey of Galway Bay and the deeply indented coast to the northward.

Lieutenant Beechey is actively employed in the survey of the great navigable lakes of Corrib and Mask in the county of Galway, which it

is to be hoped will still further increase the powerful means of inland navigation that Ireland already possesses.

Lieutenant George Williams, in hired boats, is about to commence a detailed survey of the coast and harbours of the Isle of Man, which from its position between the great ports of Belfast, Glasgow, Liverpool, and Dublin, has not unaptly been called the "Beacon of the Irish Sea."

FOREIGN.—Commander Graves, in the *Beacon*, with Commander Brock, in the *Bonetta*, are revising some of the surveys on the western side of the Archipelago, and are daily adding not only to the resources of the seaman and to the precision of modern geography, but to the materials of the antiquary on those classic and interesting shores.

Captain Bayfield, in the schooner *Gulnare*, is still proceeding with his important survey of the Gulf of St. Lawrence, and is directing his high talents and indefatigable labours to its southern shore, and to the channels and dangers round Prince Edward's Island.

Captain W. F. Owen, in *H.M.S. Columbia*, is actively prosecuting his survey on both sides of the Gulf of Fundy, and for 60 miles up the river of St. John, on a lake connected with which he measured a base upon the ice of 10 miles in length, which will be available for any future surveys of the interior.

Commander Barnett, in *H.M.S. Thunder*, with Lieut. Laurance, in *H.M. schooner Lark*, are persevering with their usual energy in surveying the coasts and dangers of the Gulf of Campeche, and along the shores of the Gulf of Mexico.

Captain Sullivan, in *H.M.S. Philomel*, having completed the survey of the Falkland Islands, which contain some of the finest harbours in the world, the arduous task was assigned to him of correcting the notoriously defective hydrography of the River Plate; but the hostilities which have commenced between the French and English forces and those of the Argentine Republic have lately given him an opportunity of distinguishing himself and his gallant crew in an equally honourable career at the battle of Obligado, on the right bank of the River Parana.

Captain Sir E. Belcher, in *H.M.S. Samarang*, Captain Collinson, in *H.M.S. Plover*, and Lieutenant Bate, in the *Young Hebe*, have been contributing most essentially to the extension of our hydrographic acquaintance with the important region of the China Seas, and therefore to the facility with which our mercantile navy will now be able to approach the several ports to which access was conceded by the late treaty. They are now returning home for a short relaxation from their labours, and with a harvest of knowledge such as it has seldom been the lot of any labourers to reap so rapidly and so well.



Captain Blackwood, in H.M.S. Fly, with Lieutenant Yule, in H.M. Cutter Bramble, have been for some time engaged in the survey of that prodigious line of coral rocks which have been well named the Barrier Reefs, intervening between Australia and the Pacific Ocean, and which almost forbade any approach to Torres Strait, the only direct communication with India. And, moreover, with the assistance lent them by Sir G. Gipps, they have erected a conspicuous stone beacon on an out-lying rock, in order to mark the safe but narrow pass through the Barrier, called Raine Island Channel. Of the navigation between this reef and the S. coast of Australia, I shall have occasion to speak more fully.

Captain Kellett, of H.M.S. Herald, and Lieutenant Wood, of H.M.S. Pandora, have taken up their survey of Western America at Guayaquil, and will continue it to the northward, along the coasts of Granada and Guatemala; but no accounts of their proceeding have yet reached the Admiralty.

Commander Denham, in H.M.S. Avon, is just commencing the survey of the interval between Cape St. Paul and the River Nun, in continuation of Captain Vidal's operations of 1838.

*Ordnance Geological Survey.*—The Geological Survey of the United Kingdom, which was formerly connected with the Ordnance, but since the spring of last year has been placed under the Chief Commissioner of Woods and Works, is still going on under the able and zealous direction of Sir H. de la Beche. Independent of Cornwall, Devonshire, and a part of Somersetshire before completed, there has just been published that part of the country comprised in Plates 35, 36, 37, 38, 39, 40, 41, 42, and 43, of the Ordnance Survey; that is, Pembroke-shire, Caermarthen, Brecknock, Glamorgan, Monmouth, with parts of Hereford, Gloucester, and Somerset. A much larger portion is now being surveyed, besides which good progress has been made in the S.E. of Ireland.

#### EUROPE.

FRANCE.—One of the most important Geographical works published by our neighbours across the Channel is unquestionably the '*Histoire des Découvertes Géographiques*, by M. Vivien de Saint Martin.' The Herculean task which M. de Saint Martin has set himself is a work which, when completed, will form 45 octavo volumes, published in 90 *livraisons*, accompanied by an Atlas of about 100 maps engraved on steel. The second and third *livraisons* have just been published, and kindly presented by its author to our Library. The first part, which will contain the General Introduction to the work, is not yet quite ready for publication, but is expected to appear shortly.

If the limits to which I must necessarily confine myself, permitted of my giving anything like a detailed notice of any particular work, none certainly would have a more just claim to your attention than the one in question. A complete history of voyages and discovery, written in the spirit in which M. V. de Saint Martin has conceived it, was a desideratum in European literature, and if successfully concluded, as it has been admirably begun, I know of no work which will reflect greater honour on its author and his country. As in all things, the experience of the past is the best guide for the future, so nothing can more surely direct us in our subsequent researches regarding our globe and its inhabitants than a perfect acquaintance with the gradual steps by which we have arrived at our present knowledge. He, therefore, who presents us with a well ordered relation of the several events by which the amalgamation, considerably advanced, though still incomplete, of the several nations of the earth and their various interests, has been so far effected, is entitled to the gratitude of all who, by the study of the past, would prepare themselves efficiently as future labourers in the great work of universal civilization. We most sincerely hope that M. de Saint Martin may not only live to complete his great undertaking, but to reap that just meed of gratitude and applause to which he will be so justly entitled, if (as we have said) he carries out his great undertaking as he has begun it.

The ‘*Nouvelles Annales des Voyages*,’ Fifth Series, edited by M. Vivien de Saint Martin, is a publication well deserving of your attention. This work contains a Geographical Review, Memoirs and Documents, Critical Analyses, and Geographical Miscellanea. The Reviews are able condensations, the Memoirs and Documents generally interesting, and the Analyses impartial, if we except here and there a national leaning, very excusable, towards the works of the editor’s countrymen. Upon the whole, it is a periodical of considerable merit, and, as keeping pace with the progress of our science and its cognate objects, will be found highly interesting to all geographers.

SPAIN.—Considering the unsettled state in which Spain has unfortunately been for so long a period, we can hardly expect to hear of the development of scientific exertions; nevertheless we notice with pleasure the publication of the first volume of Madoz’s ‘*Geographical and Statistical Dictionary*,’ the first work of the kind which has appeared in Spain. The author, we are told, has conquered almost insurmountable difficulties, and produced a book worthy of praise and attention.

There has also appeared a large quarto volume, of 1000 pages, on the Geography, History, Statistics, and Picturesque Scenery of Spain,

accompanied by numerous engravings, and which has been well received by the Spanish public.

There is announced as to be published by a society of savans, a Universal Dictionary of Ancient and Modern Geography, of Sacred and Political History, and Mythology. The Spanish geography, which goes under the name of 'Letronne,' is, in fact, our correspondent informs us, Balbi's geography, the translator having principally used the latter. It is by D. Francisco de Paula Mellado, D. Joaquim Perez Comoto, and D. Francisco Fernandez Villabril.

ITALY.—From our excellent foreign member, Count Graberg, of Hemso, we learn that the great Physical, Historical, and Statistical Chorography of Italy, of Signor Attilio Zucagni Orlandini, which is mentioned in the last Address as almost completed, is now really terminated. It forms 18 large octavo volumes, with an atlas in folio, containing 144 chorographical maps, and 262 illustrations and statistical tables. The Count vindicates the character of this work from the criticism passed upon it, and mentioned in the last address on the faith of another of our correspondents. It is evident that as regards works with which, from not having them, we are not personally acquainted, we must rely for a notice of them on the judgment and presumed impartiality of those who, being upon the spot, and whose ability cannot be disputed, we are authorized to consider as authorities. Whenever, as in the present case, the opinion of local critics differ, we have no resource but to give the statements of both: thus, Count Graberg says, "Whoever will impartially examine, as I have done, the whole work minutely, will find that its peculiar merit is its extreme exactness and conscientious precision with respect to the facts stated, which are always derived from authentic sources; while for clearness of expression, purity of diction, and correctness of style, it is no less remarkable; but above all, the author is deserving of praise for having introduced into this kind of scientific writing the most suitable and convenient distribution of the subordinate parts; in short, Orlandini and Repetti are, for the topography of Tuscany and the chorography of Italy, what the indefatigable Marmochi has been for 'The Universal Geography and for the General and Comparative Natural History of Italy,' of which three more parts have been published in the course of the last twelve months."

At Milan, Signor Casalis's 'Geographical Dictionary' is still going on.

Dr. Bernardino Biondelle is just on the point of publishing the first volume of his 'Essay on the Gallo-Celtic Dialects;' a work, says our correspondent, "which will no doubt render great service to the study of ethnography and linguistics, and enable us to proceed with certainty in our inquiries concerning the original occupants of our country."

At Brescia there has lately appeared the first, and by this time probably the second and last, volume of a work of Classical and Ethnological Geography, the fruit of the joint labours of four distinguished professors of Brescia—the Cavaliere Salari, Professor Nicolini, the architect Vantini, and the Cavaliere Labus, the antiquary, under the title of ‘*Illustrations of the Museum at Brescia.*’

At Bologna, the Advocate Signor Carlo Monti has published a learned memoir, entitled ‘*A Topographical Enquiry respecting the Shortest Road between the two Seas in Ancient Italy,*’ which appears to be (to have been ?) by Pisa, Lucca, San Marcello, Poretta, Vergato, Bologna, Ferrara, Rovigo, Monsiliar, Padua, and Venice.

Mancini has published a new edition of Gardner’s ‘*Great Planisphere.*’

Of Mastriani’s ‘*Geographico-Historico-Civic Dictionary of the Two Sicilies,*’ we have not heard of the publication of any part beyond the 26th.

Count Annibal Ranuzzi’s ‘*Geographical Annual for 1845,*’ a work which at once gives proof of the zeal of the Italians for the study of geography, and contributes largely to the advancement of every branch of geographical science, has been continued with the happiest results. Among more than forty papers by distinguished men of letters on various subjects connected with the geology, history, statistics, topography, and physical and descriptive geography of Italy, I may mention, as peculiarly deserving of perusal, Captain Joseph Brupachu’s observations on the Geographical maps and the Euganean mountains; Major Giovanni Carbonazzi’s account of the works of public utility now in progress in the Island of Sardinia; Dr. Zuccagni Orlandini’s judicious remarks on the extraordinary discrepancy between the different estimates of the superficial measure of Italy, which fluctuates between 58,000 and 96,500 square geographical miles. But on a careful computation from the best data, he finds that it cannot amount to less than 96,179 square geographical miles—an estimate, we may remark, but little below that made by our learned correspondent, Signor Adrian Balbi, in the first edition of his *Compendium of Geography*; Dr. Carlo Frulli’s summary on the Physical Geography of Italy; Captain Orestes Brizi’s notice of the Republic of San Marino; Colonel Vincent Degli Uberti’s short but comprehensive Memoir on the Port of Brindisi, the ancient Brundisium; and General Ferdinand Visconti’s very valuable Table of Geographical Determinations of Places in the Kingdom of the Two Sicilies. There is also much useful information in the extracts from private letters to Count Ranuzzi, given in the appendix to his work.

From another valued correspondent in Italy we have been favoured

with notices of what has been lately done in that country for the advance of Geographical science; and among the most prominent of the labours of the Italian engineers, that now publishing under the title of 'The Alps which surround Italy,' has been especially pointed out to our attention. Fortunately, through the great kindness of General Annibale di Saluzzo, the director of this important work, we have received a copy of the first volume and its corresponding atlas; so that we are enabled to speak of it from personal examination. The object of the work in question is the consideration of the Alps in a military point of view; and certainly, so considered, their interest is great. To us, as Geographers, however, the chief interest of the work will be found in what indeed constitutes but the introduction to it, viz., the physico-geographical description of this important mountain-chain from the Mediterranean to the Adriatic. This is comprised in one very thick royal octavo volume. The following list of chapters will be sufficient to show how fully the subject has been gone into:—Chap. 1. The natural boundaries of Italy, the commencement and termination of the Alps, and their divisions. Chap. 2. Slope and general development of the chain, and the principal groupes whence extensive secondary chains branch off. Chap. 3. The counterscarps and branches of the Italian Alps. Chap. 4. The various regions of the chain, perpetual snow, vegetation, and animals characteristic of the Alps. Chap. 5. Geology and mineralogy of the chain, mines, quarries, and mineral waters. Chap. 7. Of the forests in general, but especially of those which cover the heights of the Peninsula. Chap. 8. Roads and means of communication across the Alps. Chap. 9. Of the valleys, the rivers, and streams which take their rise on the heights to the N.E. of Italy and flow into the plains. Chap. 10. Of the lakes in and on the flanks of the Alpine chain. Chap. 11. Canals of irrigation along the mountain slopes, and in the western plain of the Peninsula. Chap. 12. Height of the principal mountains, of the defiles, and of the inhabited places on the summit, on the buttresses, and on the slopes of the Alps. This enumeration would indicate the complete exhaustion of the subject, and constitute the most complete description hitherto made public of the principal mountain-chain of Europe. The atlas, which accompanies this part of the work, consists of a map of the Alps in four sheets, on the scale of  $\frac{1}{600,000}$ , of the accuracy of which we have no doubt; but we cannot help regretting that some more satisfactory mode of indicating the positive and relative inclination and heights, has not been substituted for the old arbitrary mode of light and shade. This defect is, however, in some degree compensated by the remaining plates of the atlas, which present certainly the most effective profiles, or rather panoramic views, we have

ever seen. These profiles are double ; in the lower ones the same scale is used for the heights as that employed for horizontal distances. But not to give disproportioned space in this address to any particular work, I will merely add, that besides the part already mentioned, there will be four other parts, historical and military, accompanied by an atlas of special plans. Appended to every chapter of the work is the name of the officer of the royal corps of Etat-Major by whom it was compiled. The notes, with the exception of those to chapter 5, were written by the Quartermaster-General himself. The plans and designs were executed by Major Cassalegno, our honorary member at Turin. The two catalogues in the fourth chapter, that of the Phanerogamous plants, and that of the animals characteristic of the Alps, were supplied by the distinguished professors Morris and Gené.

The great, and, as we are informed, very valuable work of Captain Bartolomei's, entitled 'Topographical and Statistical Information respecting the Sardinian States,' is almost finished ; and the same may be said of Signor Repetti's 'Geographical, Physical, and Historical Dictionary of Tuscany.' The 'Italian Miscellany' of Adrian Balbi is also deserving of notice ; it contains a series of tracts on the geography and statistics of Italy, collected and arranged by Eugenio Balbi. Of these may be specially mentioned that on 'The Natural Boundaries of Italy ;' 'The Summary of Italian Topography ;' that 'Relative to the latest works on Italian Geography and Statistics.' Another, 'On some recent Italian Geodesic and Chartographic Works ;' the articles on Sardinia, Corsica, Tuscany, Sicily, and the Maltese group ; a geographical question, debated by the Italian geographers, &c. The various writings in this miscellany belong to different epochs.

Signor Predari, we learn, has, with the aid of some other persons, undertaken at Milan the publication of a 'Universal Chorographical Dictionary of Italy,' systematically arranged according to the present political divisions of each separate state. It will form four large volumes, but only a few numbers of it have as yet appeared.

In Tuscany, besides the work of Repetti, already mentioned as nearly completed, other works of importance are going on, some of them nearly finished. At Naples, Signor Mastriani proceeds slowly with the publication of his 'Geographical and Historical Dictionary of the Two Sicilies.'

With respect to new maps, few have come to the knowledge of our correspondent. The topographical department at Naples, under the direction of our highly-esteemed and zealous honorary member, General Visconti, is still continuing its important labours, as we learn from the following notice, which also contains what you will all hear with un-

feigned regret, an account of the sudden death of Captain Fergola, of the engineers, in the execution of his surveying labours.

The triangulation of the first order,\* relating to the extension of an arc of the meridian between Termoli and Cape Pássaro, has been attended by great difficulties in the transit from the coasts of Calabria to those of Sicily; nor was the season favourable for observations. However, six triangles were measured, by the last of which was determined the *side* of Sicily which will, in the present year, 1846, serve as a basis for the triangulation which is to be prolonged towards Cape Pássaro, the southernmost point of Sicily.

"This triangulation of the first order has," says General Visconti, "unhappily deprived us of Captain Fergola, of the engineers—a loss which will be felt in the topographical office for many years to come. Signor Fergola, in 1845, was constantly thwarted by bad weather, and had been for some days stationed on Mount Antennamare, which is above Messina, in order to measure angles with his repeating circle. On the 25th of November, 1845, he was compelled, by a violent storm, to suspend his observations, and he took refuge, with his soldiers and instruments, in a ruined chapel on the mountain. There was a tremendous storm of hail and wind, and he was standing in one of the door-ways of the chapel observing it, when the lightning struck him on the head, and instantly deprived him of life.

"In knowledge of geodesy, theoretical and practical, Captain Fergola was certainly not surpassed by any man in Europe; he had, if I may use such an expression, a geodetic tact peculiar to himself. His geodetic operations may serve as models; and in that line he succeeded perfectly in everything. To him were entrusted the course of the geodetic operations, and the instruction of the engineer-cadets in geodesy. By his death the topographical office has sustained an irreparable loss. Many projected operations it will now be no longer possible to execute; among which is the triangulation across the Adriatic, in order to connect the Austrian triangles in Dalmatia with ours in Apulia (Puglia)."

The triangulations of the 2nd and 3rd orders have advanced according as they were required in the topographical surveys.

The topographical map of the frontier, on a scale of  $\frac{1}{100,000}$ , having

\* In the President's Address for 1843, the following passage occurs under the head of Naples:—"The triangulation carried on by the Institute of Military Geography of Vienna, for the construction of the great chorographic map of Italy, is proceeding:" from which it would naturally be inferred that Austrian engineers had been employed within the territory of the kingdom of Naples; which not being the case, we should read in place of the above, "The triangulation carried on by the Institute of Military Geography of Vienna, and by that of Naples."

been continued, one part of the district of Avezzano in Abruzzo has been laid down, properly the north-western portion of that district, with part of the environs of the Lake of Celano. When it is considered that the whole number of operators on that extent of ground was only nine, and that the period of field-work does not usually last for more than six months, owing to circumstances foreign to the topographical office, it will be admitted that the amount prepared, as mentioned above, was not inconsiderable for the year 1845.

There have been also taken surveys, on a scale of  $\frac{1}{36000}$ , of all the excavations newly made in Pompeii from 1843 to the present time onwards.

While thus speaking of charts and surveys I cannot help expressing the hope that the Neapolitan authorities will, ere long, correct, by a careful survey, the western and southern coast lines of the kingdom; the more, as the coasts of the neighbouring states—Rome, Sardinia, and Turin—are being accurately laid down by the French engineers, on the same scale as their own surveys.

The Hydrographical Chart of the Mediterranean, including the Black Sea, in three large sheets, with a scale of  $\frac{1}{2500000}$  on a mean parallel, has been completed and published.

The engraving of three new sheets of the great map of the environs of Naples on a scale of  $\frac{1}{250000}$ , has been continued. It comprehends Capua, Caserta, &c., but will not be finished till next year.

The engraving of the great topographico-military map of the kingdom of the Two Sicilies, on a scale of  $\frac{1}{360000}$ , is continued, and four more sheets (the first, comprehending Naples, having been published two years ago) have been finished; the whole is going on progressively.

The engraving, likewise, of many special plans of harbours, channels, &c., for the use of the Neapolitan navy, is continued.

The whole delineation of the Faro of Messina in several sheets, on a scale of  $\frac{1}{100000}$ , and of the city and port of Messina, on a scale of  $\frac{1}{50000}$ , has been completed: these works were executed in the years 1841, 42, 43, and 44, and have been laid before the king. The publication of them awaits his Majesty's commands.

The protraction of the topographical field work, on a scale of  $\frac{1}{250000}$ , has been constantly made, as soon as the work on the spot was finished.

The original drawing of the itinerary map of the kingdom, on four sheets, with a scale of  $\frac{1}{360000}$ , has been continued, and will be engraved.

Besides the abovementioned, which are the ordinary labours of the topographical office, it always has in hand a great many other extra-



ordinary works of various kinds, continually called for by the king or the superior authorities.

BELGIUM.—At Bruxelles various works have been published during the past year, bearing directly or indirectly on geography and topography. Many of these are of local interest; we may, however, mention as of more general importance the 'Dictionnaire de la Belgique,' by Charles Meert; a supplement to the memoir on the 'Navigation de la Belgique,' by the Inspector Vifquain; a work on Elementary Geography and one on Ancient Geography by M. P. Neu.

Of maps, Mr. Raes has published an Atlas of Belgium, while M. de Vandermaelen, our valued honorary member, has, as usual, sent out from his admirable geographical establishment a great number of interesting and important works. Many of these are connected with railways, and therefore belong more directly to commerce and statistics than to geography. Some, however, are of a different character, such as his 'Etude sur les Voyages de Benjamin de Tudela,' an object of great interest to ancient geography; a Map of the Watercourses of Eastern Flanders, and others relating to hydrography, an important branch of physical geography. A Topographical Map of Belgium in 25 sheets. Of this the following sheets are already finished, viz., Bruges, Ostend, Mons, Charleroy, Philippeville, and Dours. Those of Bruxelles, Dinant, Namur, Anvers, Turnhout, Brée, and Neune Eglise are nearly terminated. This important map has been somewhat delayed in consequence of the numerous railway projects which in Belgium and elsewhere in Germany, as with us, seem to have engrossed almost exclusive attention. The scale of the map in question is  $\frac{1}{360,000}$ . Besides this, four sheets are completely finished of a Topographical Map of Belgium in 250 sheets, on the scale of  $\frac{1}{360,000}$ . The four sheets that are ready are those of Bruxelles, Torvueren, Assche, and Vilvorde. Several other sheets, such as those of Louvain, Malines, Namur, Gosselies, Fontaine l'Evêque, Binche, and Mons are near being completed. The four first we have already been favoured with through the kindness of M. Vandermaelen.

A map of explorations in the states west of the United States of America, prepared by Baron Vandertraeten de Pontbiz. This map is destined to accompany a work by the Baron relating to emigration.

A plan of Bruxelles much more complete than any before published.

Of surveys completed in Belgium we may mention a part of the province of Liege, comprising the cantons of Waremmes, Landen, Avennes, and Bodegnée. Also a part of East Flanders, comprising several cantons, and a part of Brabant, comprising four cantons, which have all been executed for the geographical establishment at Bruxelles.

Of Belgian travellers, Dr. Maris, who visited Texas in 1844, returned at the commencement of the present year, and intends shortly setting out for Paraguay. We have not been able to learn what have been the results of the doctor's travels; but hope they may throw some new light on the country he has visited.

GERMANY.—From our valued honorary member, Professor Von Berghaus of Potsdam, so well known to you all by his important labours for the extension of geographical science, we have been favoured with the following account of what has been done in Germany since the period of our last anniversary.

The additions to our geographical and ethnographical knowledge which, says the Professor, must go hand in hand, have not been considerable during the past year. Of the few German works which have really advanced the science may be mentioned:—

1. 'Klippstein's Contributions to the Geological Knowledge of the Eastern Alps,' of which valuable work the third number has appeared.

2. Schaubach's 'Picture of the German Alps,' of which excellent monograph two volumes have been published.

3. The very useful publication of Dr. Carl Bernhardi, of Cassel, entitled a 'Linguistic Map of Germany,' in which the limits of the German language, in Germany itself, and in the more considerable colonies which the Germans have established in other places, as in Zips and in Transylvania, has been followed in 1845 by a publication of Dr. William Stricher, of Frankfort-on-the-Maine, 'On the Extension of the German Nation over the Surface of the Globe.' In this work the author has, with great industry, collected and arranged all the facts bearing upon his subject, and has paid particular attention to the great part which the Germans have had in peopling the United States of America. But he has, says M. Berghaus, overlooked one region colonised by Germans, and where they have strictly preserved their national character and manners, viz., South Africa. The Dutch population at the Cape of Good Hope must be considered a branch of the German nation, as their countrymen the Hollanders both geographically and ethnographically form a part of the German people, though separated from them in a political view.

Dr. F. Leizmann has published 'Antipathies between the German and Slavonian Nations;' and the Curator of the State Library of Szecheny in the National Museum of Hungary, at Pesth, Stephen von Horvat, has published a 'Primæval History of the Slavonians from the Trojan War to the Times of Justinian.' This work is said to be valuable, from its collection and arrangement of the most ancient facts and testimonies on record respecting the Slavonians; but disfigured by the bad feeling which pervades it.

Seifort, by his publication on Acragas (Girgenti) and its territory, has increased our knowledge of the geography and history of Sicily ; and Leonardi has given, in a small volume, an interesting picture of the manners and customs of the Rhetians, or inhabitants of the highlands of the Grisons.

Of German works contributing to the knowledge of countries situated in other quarters of the world, the first to be mentioned is Russeger's great work, being an account of his travels, principally in Africa, of which nine parts have been published.

The Baron Augustin has published 'A Description of Marocco from Actual Observation.' He treats of the geography and the history of the country, as also of its religious, political, military, and civil condition ; and on these subjects adds something to our previous knowledge of the country.

Dr. Tams, of Altona, has published an account of the Portuguese possessions in South-Western Africa, in which he describes the low moral condition of the Portuguese settled there, together with the shocking example which they set to the natives, and the degraded state of Christianity.

Several works have been published on the United States of America, of which the most important is that by Grisson, of Hamburg, and that by the celebrated historian and tourist, Frederic von Raumer. There has also appeared the 'Report' of the commission sent by H. R. H. Prince Charles of Prussia to examine some parts of the Mosquito coast. This document contains a good deal of useful information on that part of intertropical America. It was originally proposed to establish there a German colony ; but the project not being favourably received by the German public was long since abandoned. Tchudi, a Swiss naturalist, after travelling over Spanish South America for five years (from 1838 to 1842), has published the results of his observations on the Fauna of Peru in the periodical publications devoted to that branch of natural history ; but his personal narrative and other observations are given in a separate work, entitled 'Peru ; Sketches of a Traveller,' and contain a great deal of interesting matter on the republic of Peru and on Valparaiso.

Baron Kittlitz, a captain in the service of Russia, and the former companion of Admiral Lutke, has just published 'Views of the Vegetation on the Coasts and Islands of the Pacific.' They deserve, says Professor Berghaus, to be known in England.

The important work of Dr. Von Sieboldt on Nippon, although printed in Holland, is written in German. The fifteenth section has appeared.

Lieut. Zimmermann has published, in the form of Letters addressed to Alexander von Humboldt, 'A Memoir of the Lower Course of the Oxus to the Karabagas Lagune of the Caspian Sea.'

Augustin Burick has translated Marco Polo into German, and added a commentary, which has received some additions and corrections from the pen of Mr. Chas. Frederik Neumann, of Munich, who is well versed in the language of China. The last-mentioned learned individual has published a small volume entitled 'On the Condition of Mexico in the Fifth Century of our Era, according to Chinese Writers.' It is an account of that country, which, in the great Annals of the Celestial Empire, is called Fu-Sang, and which Deguignes thought might be a part of America, while Klaproth considered it as referring to the country of Nippou or Japan.

Mr. Kulb (Curator of the Municipal Library of Mayence) has endeavoured to extend geographical and ethnographical knowledge by incorporating those subjects in the biographies of celebrated travellers and discoverers.

Dr. Ernst Kapp has published some ingenious views on geographical and ethnological subjects under the title of 'Philosophy of Geography.'

Finally, Professor Berghaus himself has published an Ethnographical Picture-Book, which has been very well received; it contains 150 well-executed plates.

Of MAPS, we are informed, the following are now in progress :—

By the Austrian General Staff, a Special Map of the Margraviat of Moravia.

By the Prussian General Staff, a Map of the March of Brandenburg, on a scale of  $1:100,000$ , and a Map of the Provinces of Westphalia, &c., on a scale of  $1:80,000$ .

By the Bavarian General Staff, the Great Bavarian Atlas on the scale of  $1:50,000$ , and the Palatinate on the scale of  $1:30,000$ .

By the General Staff of the Grand Duchy of Hesse, a Map of that State on the scale of  $1:50,000$ .

By the General Staff of Baden, a Map of the Grand Duchy of Baden on the scale of  $1:50,000$ .

By the Geographico-Statistical Bureau of Wurtemberg, the map of the kingdom of Wurtemberg, on the scale of  $1:50,000$ , and also separate Maps of the Upper Bailiwicks on the scale of  $1:100,000$ , with geographical and statistical descriptions. Of this latter 18 parts have been published.

Besides these, there have been issued some fresh sections of the excellent 'Geographical Map of the Kingdom of Saxony,' under the special superintendence of Neuman and Cotta; and Partsch has at last begun the publication of his Geological Map of the Alps in Lower Austria, which had been promised by him long ago, and anxiously expected by the geologists; it contains the basin of Vienna.

Sartorius von Walterhausen has published the first part of his truly admirable Topographical Map of Mount Etna. Of General Maps I

shall only mention Handke's Atlas of the Prussian Monarchy, which, on account of its size is very handy, and is well executed.

The Physical Atlas of Prof. Berghaus is still in progress. He has just terminated the section containing the geography of the animal kingdom, and has passed on to ethnography. This atlas contains, among other general maps, a great special map representing the nations of Europe, which will shortly be published.

The Eighth part of Spruner's great work, his Historico-Geographical Atlas, has been published; it contains the history of the territories of the Ottoman Empire.

The Professor complains that in the new Topographical Map of Switzerland, which, it was expected, would give an exact representation of the form and nature of the Alps, the old system of representing the slopes by mere light and shade has been retained, which has caused a very great disappointment.

With regard to relief maps, the difficulty and expense attending them are such as greatly to limit their publication—a circumstance which Professor Berghaus is, like many others, very disposed to rejoice at, considering them decidedly a step backwards rather than a progress in improvement. This subject was touched upon by my predecessor; it is one of those on which opinions will differ, and on which each will exercise his own judgment.

The trigonometrical survey of the states of the German Confederation has been terminated, each country having been separately surveyed, though, in many cases, the triangles have been connected. Nothing, therefore, remains to be done but for the different governments to combine to give unity to the work, and add to it a geometrical description of all Germany. The Elector of Saxony was the first of the German sovereigns who set on foot a regular survey of his country, which has been regularly carried on ever since 1778. It may be observed that the geodetical measurements of the Austrian General Staff are distinguished by their indication of the vertical heights of places, so that the elevation of the German Alps is now generally known, to the great satisfaction of the geologist and physical geographer. It is much to be regretted that this plan is not universal.

In Prussia geodetical levels have been executed at the expense of the government from Swinemund on the Baltic to Berlin, and along the Oder to the Austrian frontier. The latter of these operations was rendered necessary for the hydraulic work to be executed along the river, and the former was undertaken at the request of M. Bessel, the astronomer, who was desirous of determining the length of the pendulum to vibrate seconds at Berlin. It was found that the trigonometrical levels

gave the same result for the height of the capital above the sea, as the barometrical observations continued for a number of years by Professor Berghaus had made it.

The latter gentleman, speaking of geographical education in Germany, complains that more pains are taken to make the people acquainted with the geography of Asia or of America than with that of Europe and their own country. I fear the same remark is but too applicable among ourselves.

His Royal Highness Prince Waldemar of Prussia (cousin, not nephew, of the king, as was printed by inadvertence in the last anniversary address) is still in India, whence, from his known zeal and industry, it is expected he will bring back to his country a rich harvest of interesting information. Consulting only his ardour for science, and burthened with the usual load carried by a traveller on foot, he scaled the lofty Himmalayah, crossed the frontier of the Celestial Empire, and reached the table-land of Thibet. The letters of Dr. Hoffmeister, who accompanied the prince, and which letters are addressed to Professor Lichtenstein, of Berlin, describe many objects of natural history quite new to us, and great collections made by the prince have already reached Berlin by different routes. It is understood to be the prince's intention of returning to Europe by Afghanistan, Persia, and Asia Minor. The presence of H. R. Highness with our gallant troops in the late sanguinary engagements on the Sutlej is known to you all, and to say that he was present is to say that he was no inactive spectator.

Lepsius has returned from his exploration of Egypt and Nubia, and great anxiety is manifested for the publication of the result of his labours.

Peters, who has been investigating the three kingdoms of nature in Mozambique and other places on the Eastern Coast of Africa, has not been heard of lately. A great deal is expected from the labours of this traveller, whose researches, it is confidently hoped, will enable us to fill up a good deal of what is now blank in our maps.

VIENNA.—General Skribanek, our talented corresponding member at Vienna, informs us that the following have just been published :—

The continuation of the special map of Krain by Freyer, 2nd and 3rd *livraisons*. The map of Bohemia by Kumersberg, 2nd sheet. By the Imperial and Royal Military Institute, the special map of Moravia, scale 1:44,000, 20 sheets. The general map of the same country, scale 1:88,000. Both entirely finished.

A new map of Europe, engraved on stone, and printed with colours by Mr. Scheda, in 25 sheets, of which 6 have appeared.

Of surveys, those of Bohemia and Hungary, under the direction of the

Geographical Institute, have been continued. The triangulation in Hungary, and astronomical observations, mentioned last year, have been executed. Next year the triangulation will be continued in Hungary and on the Croatian frontier.

The Military Geographical Institute is now occupied with the special map of Bohemia, scale  $1:44,000$ ; and with the continuation of the general map of Italy; and the special one of the States of the Church, Tuscany, and Lucca.

**SAXONY.**—At Dresden there has been published Part V. of a Geognostic Description of the Kingdom of Saxony and the adjacent provinces, by D. Naumann, containing a geognostic sketch of the environs of Dresden and Misnia, with three lithographed plates.

Of maps, D. Colta has lately published the Geognostic Map of Thuringia, as a continuation of the Geognostic Map of Saxony, published by the Saxon Government. It contains the section of Rudolstadt, Meiningen.

Of the geographical labours in Saxony undertaken by the Government, our correspondent, Colonel Oberreit, informs us he has nothing new to add to what was stated in Mr. Hamilton's Address of 1842. As for the publications of private individuals, it appears that in Saxony, as elsewhere in Europe, there have been a few booksellers' speculations which have added nothing new or considerable to our knowledge; and that as regards maps they have been exclusively topographical plans made for the use of different railway companies.

The beautiful Topographical Atlas of Saxony, of which we possess the first sheets, is in progress of completion. The 3rd Part, containing the sections of Zickau, Bornä, Leipzig, and Ochatz, is almost all engraved; but some time must yet elapse before it will be ready for publication.

**DENMARK.**—From Denmark we have been favoured with some interesting information.

'Scripta Historica Islandorum,' vol. xii. (pp. 658, in 8vo.), has just been published, and completes the edition, first commenced by the Royal Society of Northern Antiquaries, of the Historical Sagas, recording events which happened in Norway, Sweden, and Denmark, in the original Icelandic text, with two translations, one into Latin, and another into Danish (36 vols.). This volume contains Regesta Geographica to the whole work, which for this large cycle of sagas may be considered as tantamount to an old Northern Geographical Gazetteer, inasmuch as attention has been paid to other northern manuscripts of importance in a geographical point of view. Complete, however, it cannot by any means be called, neither as regards Iceland especially, nor other lands

in America whose copious historical sources have in the present instance been but partially made use of, nor as relates to those European countries that are extra-Scandinavian, especially Russia and the British Isles, for whose remote history and ancient geography the old northern writings contain such interesting materials; but it is to be hoped that the Society will in due time take an opportunity of extending its labours in that direction also, which we would earnestly exhort them to do, convinced as we are that they will thereby supply important contributions towards the history of geography. The present volume does however contain the names of a number of places situated without the bounds of Scandinavia, in countries of which mention is made in the writings published in the work itself. To the name of each place is annexed its Icelandic or old Danish form; and the position of the place is investigated by means of comparison with other historical data, and with modern geography. The basis for this has been the 'Geographical Register,' compiled in Danish by Nicolas M. Petersen, inserted in the 12th vol. of the work entitled 'Oldnordiske Sagaer,' published by the Society, and now remodelled in Latin, with several additions and corrections, by Grime T. Thomsen, A.M., a gentleman who has lately distinguished himself by a philosophico-æsthetical essay on Byron, lately published by him in Danish.

The same indefatigable Society of Northern Antiquaries has also published, in the past year, *Grænland's Historiske Mindesmærker* (i. e. 'Historical Monuments of Greenland'), vol. iii., 958 pages, with 12 copperplates, which volume completes the work. The 1st and 2nd vols. (of pp. 814 and 794 respectively) were published in 1838. After Professor Rafn had finished the compilation of his separate work, *Antiquitates Americanæ*, which was published by the Society in 1837, he connected himself with Professor Finn Magnusen, also one of our distinguished foreign members, for the purpose of editing, under the auspices of the Society, the great collection of original documents relating to the history of that remarkable Polar land (Greenland) which was first seen in 877, and colonised in 986. With a view to doing all in their power to elucidate the subject of ancient Greenland, the Society, during the ten years from 1832 to 1841, caused journeys to be undertaken and explorations made in such of the Greenland firths as were of the greatest importance with respect to ancient colonization. By excavations among the ruins of the ancient colony, there was obtained a collection of inscriptions and objects of antiquity which are now preserved in the American Museum founded by the Society, and ground plans were taken of several edifices. Of the Reports received on this occasion we must in an especial manner notice—as exhibiting evidence of the most assi-



duous care, and as moreover embracing the most important part of the country—the explorations undertaken by the Rev. George F. Jorgensen, of the firths of Igalikko and Tunnudluarbik, where the most considerable ruins are situated. The volume in question (vol. iii.) contains extracts from annals and a collection of diplomas relating to Greenland, compiled by Finn Magnusen (to this part appertains a plate exhibiting seals of the Greenland bishops); ancient geographical writings, compiled by Finn Magnusen and Charles C. Rafn; the voyages of the brothers Zenowith, introductory remarks and notes by Dr. Bredsdorff; a review of more recent voyages for the rediscovery of Greenland, by Dr. C. Pingel; and an antiquarian Chorography of Greenland, drawn up by J. J. A. Worsaal from the accounts furnished by various travellers of their respective explorations. The work concludes with a review of the *Ancient Geography of Greenland*, by Professor Rafn, founded on a collation of the notices contained in the ancient MSS., and the accounts of the country furnished by the travellers; to which is added a list of the bishops, and a chronological conspectus of the ancient and modern history of the country; a historical index of names, a geographical index, and an antiquarian index-rerum. Copperplate maps are annexed to the two most important districts of ancient Greenland, the Eysribygd and the Vestribygd (the eastern and the western settlements), exhibiting the position of the numerous ruins. There are moreover plans and elevations of the most important ecclesiastical ruins and other rudera; also delineations of Runic stones, and other Scandinavian antiquities found in Greenland.

Of the above-mentioned contents of the volume we must here restrict ourselves to noticing, as most closely connected with our special object, the result of Professor Rafn's review of the ancient geography of Greenland, according to which the E. coast of that country was in ancient times inhabited by Europeans, although, from the account of Are Frode, the earliest Icelandic historian, it would appear that on the discovery of the country and survey of its coast, there were found, both on the E. and W. coasts, remains indicative of their having been resorted to at an earlier period by the Skróelingar, or Esquimaux of America. The *Svalbarde* of the ancient Northmen, discovered in 1194, appears to be the tract of coast surveyed by Volkert Bohn, of the island of Foehr in 1761, and rediscovered by Scoresby, by whom it was named Liverpool Coast. The Gunnbiarnarsker, discovered in 877 by Gunbiorn, will be the islands seen off the coast by Capt. W. A. Graah,\* in lat. 65° 30' N.; Hirtserk, the southernmost promontory Cape Farewell; the chief seat

\* Captain Graah's work on Greenland, it may be remembered, has been published in English at the expense of the Society.

of the colony, the present district of Julianæhaab. The most important of the colonised firths are named in order from S. to N. in four original MSS., of which the latest and most circumstantial is a Chorography by Ivar Bardsen, who in 1341 was sent by the Bishop of Bergen to Greenland, and who for many years was superintendent of the episcopal see of Gardar.

Herulfsnes with Heriulfsfirth, where Heriulf Bardsen settled in 986, and where his son Bearne Heriulfsen arrived in the autumn of the same year (after having seen the more southern American coasts), is the Ikigeit of the present day. Of the church mentioned in Bishop Gudmund Arason's Saga, some of the ruins are still left, and several inscriptions have been found. Ketihfirth, with its two churches, is the modern Tessermint, where Mr. Aroe found a quantity of ruins. Rafnsfirth, which in the first year of the colonization (986) was colonized by the Landnamsmann Rafn, is now Ounartok. According to the ancient description of Ivar Bardsen, of the fourteenth century, there were in this firth islets with springs of hot water. There are in the islet of Ounartok three warm springs which have given to the island and firth their Esquimaux name, signifying in that language the boiling (island). Captain W. A. Graah, of the Royal Danish Navy, who visited the place in July, 1828, found the temperature of the water in these springs ranging from  $26^{\circ}$  to  $33\frac{1}{2}^{\circ}$  R. SIGLU FIRTH is now Aglustsok. Here the ruins of Voga church were discovered by the Rev. Valentine Müller, who visited the firth in 1832 and 1833 on behalf of the Society. He saw moreover the rudera of a mansion belonging to the King, called by Ivar Bardsen, Foss, or waterfall, situated near a large stream, forming a waterfall of 200 feet in height. EINARSFIRTH is Igalikko. The ruins of the cathedral and episcopal see of GARDAN, which was founded in 1126, and stood for upwards of three centuries, were rediscovered at Kaksiârsuk, on the eastern arm of this firth. ERIKSFIRTH is now TUNNUDLUARBIK together with the northern arm of Igalikko, at which the ruins of the principal settlement of BRATTALID, with LEIDAR church (the church of the district), have been found, and have been discovered the vestiges of the house of Brattahlid itself, so denominated from its being built up against the side of a steep precipice (from *Brattr* and *hlid*). The Rev. Mr. Jorgensen, who has given a description and ground plan of the whole settlement, which may be compared to an entire town, observes that a steep rock forms one of the walls of this house, the building of which was accomplished with incredible labour. It was erected by Erik the Red, who in the year 986 made it his residence. It was subsequently occupied, at the commencement of the eleventh century, by his celebrated son, Leif the Happy, and by his grandson, Thorkel; and it continued down to the

latest time of the colony to be the abode of the sheriff. Here in this house the far-famed couple, Thorfinn Karlsefne and Gudrid Thorbiorns-dottir, celebrated, in 1007, their nuptials, and determined on their remarkable voyage of discovery to that more southern land which, seven years before, had been discovered and visited by Leif Erikson, Vinland, in America (the present Massachusetts and Rhode Island). "We cannot here refrain," says our correspondent in alluding to this house, "on behalf of geographical science, from expressing a wish that the ruins of this house, which has thus acquired such historical interest, may continue to be preserved; and we have no doubt that the enlightened King of Denmark, who takes so lively an interest in the monuments of antiquity, will cause whatever is requisite to be done for the preservation of one of the most remarkable of the historical monuments of the new world." OSAFIRTH, which was the most western firth in the Eystribygd, will be the great bay in which lies the island of Sennerut. One arm of this firth was called UTIBLIKSFIRTH, a name adopted by the ancient Northmen from the Esquimaux, with whom they must consequently have held intercourse at an early period in Greenland, for it is the Esquimaux word ITIBLIK, signifying an isthmus; and there is, in fact, found here a remarkable isthmus which the Esquimaux still call by that name. Eystribygd comprised anciently 190 settlements, with 12 churches, of most of which unquestionable ruins have been found. The site of Westribygd, which included but 90 settlements and 4 churches, lay farther towards the N., and the ancient STEINSES must be placed at Aglomersot. RANGEFIRTH, at Amarogliik; ANGAFIRTH, with a church at *Hope* in Baal's River, in the present district of Gotthaab; and LYSUFIRTH, will be Isertok, in the district of Sukkertoppen. Of the ancient NONTOSSETUR, or summer stations for fishing and hunting, we may mention BIARNEY (which had been already visited in 1007 by Thorfinn Karlsefne in his voyage to Vinland), now Disco; the island of Kingiktorsoak, to the N. of the most northern of the present Danish establishment Upernivikuhoe, and in which a curious Runic stone of 1135 was found in 1824; and KROKSFIRTH, through which some clergymen from the episcopal see of Gardar performed, in 1266, an exploratory journey, now proved, from astronomical notices contained in the ancient account of this journey, to be Sir James Lancaster's Sound and Barrow's Strait, together with Prince Regent's Inlet.

RUSSIA.—From St. Petersburg we learn with very great satisfaction that a Geographical Society has been formed, to which the Emperor, with his accustomed liberality in all that relates to the physical sciences, has contributed an annual sum of 10,000 silver rubles, nearly 1700*l.* of our money. The origin of this Society is supposed to be the very great in-

terest excited by the travels of M. Middendorff, to whom one of your medals has just been awarded, and of other Russians whose explorations into remote and hitherto little known regions of the vast empire of the Czar have thrown so much new light upon its geography. We trust the efforts of this new Society will be attended with the success it anticipates, and that our award of this day, contemporaneous with its birth, may prove a happy omen of a brilliant career. M. Middendorff's travels, mentioned in a former Address, are about to be published by the Academy of Sciences of St. Petersburg.

In connexion with this subject we are informed by Sir Roderick Murchison that he has just received letters from St. Petersburg, acquainting him that the Imperial Geographical Society of that capital, of which we have just spoken, and which has been formed on the model of the Royal Geographical Society of London, has resolved that its first great exploratory expedition should be directed along the eastern flank of the Ural Mountains from the parallel of 60° N. latitude (Bogorlofsk) to the Glacial Sea. This survey is to be conducted by Count A. von Keyserling, already known to the public through his valuable geological co-operation in the work on Russia by Sir R. Murchison, and for his geographical researches in the hitherto little known region of the Petchora on the north-western flank of the Arctic Ural; and who, by his sound acquirements in zoology, geology, and geography, will, it is presumed, during the ensuing three years throw great additional light on the wild Arctic regions which separate Europe from Asia; and which, inhabited by Ostiaks and Samoyedes, extend beyond the limits of arboreal vegetation. Among numerous other objects, it is hoped that this expedition (the head quarters of which are to be at Obdorsk) will elicit new results concerning the entombment and preservation of the Mammoths.

Count Keyserling's work on the Petchora, North-western Ural, and Timan Ridge, is about to appear, under the title of '*Wissenschaftliche Beobachtungen in Lande der Petchora.*'

By our valued honorary member, M. Kupffer, we are informed that the great magnetic arrangements are in progress, and that the observations will be continued in Russia on the same plan as in England and in our colonies, according to the resolutions passed at the Magnetic Conference at Cambridge.

We wait with great impatience for the publication of the two important geographical works, the travels of M. de Middendorff in the northern parts of Western Siberia in 1843, and the completion of the account of those of M. P. de Tchihatcheff in the Altaï in 1842, of which the first portion has already been published in French.

## ASIA.

**PERSIA.**—Dr. Cloquet, appointed to a situation in Persia, has received instructions from the French Academy of Sciences for making observations on the botany and zoology of the country ; we may therefore hope in time for further information on the natural productions of that part of Asia.

**Indian Surveys.**—The surveys in India are proceeding satisfactorily under the superintendence of Captain Waugh, the Surveyor-General. A great addition to our trigonometrical surveys may be expected in the course of the ensuing season. The different works enumerated in a former Address will be published very shortly.

We may also hope that the late political events in the N.W. of India will, by increasing the influence of Great Britain in those parts, give additional facilities for perfecting our knowledge of the geography of the Punjaub and Kashmir.

The Bombay Government has transmitted to the Court of Directors, by the bimonthly mail of April, two charts of the survey of the S.E. coast of Arabia, the one from Ras Maribut to Ras Segur, the other from Ras Fartuch to the ruins of Messinah, accompanied with a well-written report, not only of the progress of the survey, but of animated details of the various tribes who inhabit the coast, with some excursions, by Dr. Carter, of the *Palinurus*, into the mountainous districts which lie near the coast.

There is also transmitted by this mail a descriptive account of the ruins of El Balad, by Assistant-surgeon H. J. Carter, of the *Palinurus*, together with the sketches in original of the ruins referred to therein.

**China.**—Everything connected with the Chinese empire is now of great interest to us, and I have therefore pleasure in calling your attention to a very interesting memoir of physical geography by our learned corresponding member M. Edward Biot, published in the 'Journal Asiatique' of Paris. It is on the progressive extension of the north-eastern coast of China from very early times. It would appear, from a critical examination of Chinese documents of various epochs, compared with the labours of the Jesuits and with the most modern surveys of the coast, that this latter has encroached upon the sea in the Gulf of Pe-chi-li, about the mouth of the Pei-ho, at the rate of about  $\frac{1}{4}$  of a kilometer per annum, at which rate the whole gulf would be filled up or obliterated in 2430 years ; while the inner and narrower part of the gulf of Leaotong will probably be filled up in less than 1100 years. The outer or wider part of this gulf will, in M. Biot's opinion, be the last filled up. The whole of the eastern coast about the mouths of the

Hoang-ho and the Yangtse Kiang has considerably advanced. Of this encroachment of the land upon the sea, the proofs advanced by M. Biot appear satisfactory; indeed it is a fact well known and authenticated, that the land in many parts of the world gains upon the sea, while in other places, by way of compensation, the sea encroaches on the land. If we admit, and there seems no reason for doubting the fact, that the quantity of the water of the ocean remains ever the same, it is evident that the immense quantity of detrital matter annually emptied into the bed of the ocean must occasion a displacement of a corresponding bulk of water—a displacement rendered more or less evident on different coasts, according to a variety of modifying circumstances. Nevertheless the filling up of extensive gulfs is a great operation; and, without wishing in the least to disparage the calculations of our valued corresponding member, it may be remarked that Nature seems, in some cases at least, and by operations unperceived by us, to prevent such fillings up of gulfs and seas; or at least to postpone the event far beyond the periods we would assign for them, in confirmation of which I need only call to your recollection the case of the Palus Meotis, or Sea of Azoff, which ancient geographers predicted would be soon filled up, but which, though shallow, shows no sign of change.

M. Biot says that chronometrical determinations by the officers of the French corvette, *Danaide* fix the positions of Tchin-hai and Ning-po as within a few minutes only of the places assigned to them by the missionaries, whereas Arkwright (Arrowsmith?), Wyld, and Klaproth place these towns a whole degree too far W., an error which he thinks it right to call attention to.

The chart of this part of the coast of China, as laid down by our latest surveys, is not yet published; but through the kindness of the Hydrographical Department of the Admiralty, I learn that Capt. Collinson places Tchin-hai in long.  $121^{\circ} 43' 6''$  E. of Greenwich, and Ning-po in  $121^{\circ} 35' 0''$ , thus agreeing within  $3'$  of longitude with the officers of the *Danaide*.

Sir J. Davis (Governor of Hong Kong), in a letter written in November last, also informs me that the E. coast of Formosa was laid down fully a degree too much to the E., the *Agincourt*, of 74 guns, sailing over what was represented as dry land. Capt. Collinson had discovered on the N. of Formosa a mine of excellent coal, which may prove highly useful to our steamers.

M. Biot has published other geographical memoirs in the '*Journal Asiatique*,' one of them a Note on two Chinese Maps of the Great Canal and Yellow River.

While on the subject of China, I may also state that, in the '*An-*

*nales de la propagation de la Foi,* which is a continuation of the celebrated '*Lettres Édifiantes,*' and which contain many interesting communications from the Roman Catholic missionaries dispersed throughout Asia, America, and Polynesia, you will find, in the number for May and July, a very detailed letter of one of the missionaries who in 1842 travelled from the extremity of the lake Po-yang, as far as Hang-tcheou-fou, and who describes the immense transport which is carried on the Kiang, and other interesting matters. In the number for January of the present year, there is an account of the excursion of another missionary, M. Grandjean, into the very little known country of Laos to the N.E. of the Birman Empire. The traveller divides the Laosians into two people—the Black-bellies, who tattoo themselves, and the White-bellies, who do not tattoo themselves. He resided a month at the chief town of the Black-bellies. The Laosians, he says, are generally an agricultural people, and bear considerable analogy to the Siamese.

*Isle of Bourbon.*—M. Choron, appointed to a scientific situation in the island of Bourbon, where he expects to reside for some years, has been supplied at his own request with such instructions as are necessary for the observation of everything of a scientific nature connected with the island. There is no doubt but that from its situation it may furnish many interesting data for the general physics of the globe.

*Arabia.*—In the French '*Journal Asiatique*' will be found the detailed account of M. Amand's travels in Southern Arabia: he visited the ancient dyke of Mareb, and copied there a great many Hamyaritic inscriptions.

The Rev. Mr. Brockman, who has been for more than a year exploring the S. coast of Arabia, and has made himself master of the Bedouin as well as Arabic language, having acquainted the Council that a favourable opportunity presented itself for his penetrating into the interior of the province of Hadramaut, under the protection of one of the more powerful chiefs, but that, his private funds being exhausted, he must forego this unexpected prospect of success, unless he could receive the means of providing for his journey, the Council, as you have already heard, obtained, through the liberality of Her Majesty's Government and the East India Company, the required sum, and we may hope through Mr. Brockman's exertions to obtain much new information on the antiquities as well as geography of that little known region.

#### AFRICA.

EGYPT.—Indications of coal, it is said, have been found by a French engineer, in the southern part of the Wady Arabah, in the gulf of Suez. Should it be found to exist in any quantity, of good quality, and easily

obtained, it will be of great importance both for the navigation of the Red Sea and for the future application of steam power to the industry of Egypt.

ABYSSINIA AND THE NILE.—Notwithstanding the great number of travellers who of late years have visited Abyssinia, and more or less extensively explored various parts of it, the great question of its rivers, principally of the so called two Niles, the white and the blue, seems as far as ever from being definitively settled. Nor can we altogether wonder at this; nothing can be more uncertain than the wandering course of rivers; they acknowledge but one law, that of seeking the lowest level; but it is this inclined course itself, this *thalweg*, which is subject to endless variety in its windings and doublings, so that when two travellers strike the same stream at no great distance from each other, it not unfrequently happens they will each, with equal truth, declare its waters to flow in directions diametrically opposite. Another source of error may be traced to affluents and recipients being taken for one another, by the inhabitants on different sides of the valley. There is therefore but one certain way of ascertaining the course and direction of a river, and that is by tracing it down in its whole length from source to recipient. This is the more necessary, as many rivers are found to open for themselves a passage through mountain ridges, and otherwise run in directions essentially different from what the apparent conformation of the country or region would seem to indicate. Thus it is that we are still in uncertainty respecting the Bahr-el-Abiad, and the true Abbai, or Bahr-el-Azrek, which latter, according to Lane, is the Dedhesa. Monsieur Antoine d'Abbadie, who, as you well know, has sojourned several years in Abyssinia, has not neglected to reap what information he could respecting the Nile. In the Bulletin de la Société de Géographie de Paris for last May will be found a communication by him on the subject, and which he begins by saying,—“The sources of the Nile constitute the most important geographical question ever raised.” In the opinion of M. d'Abbadie, the Gojeb (first mentioned by our countryman Dr. Beke) is identified with the White Nile, of which he, M. d'Abbadie, says it is the true source, placed, according to his observations, in lat.  $7^{\circ} 20' N.$ , and long.  $1^{\circ} 20' W.$  of Sakka, a relative position absolutely identical with that laid down by Dr. Beke in 1843, in his map, published in the 13th vol. of our Journal. This river, says the French traveller, known to us as the Bahr-el-Abiad, or White Nile—to the people of Sidama as the Godefo, or Godepo—to the Gallas as the Godjeb, or Godeb—to the Yamma and Yangara as the Omo—to the Dawaro as the Ouma—and to the people of Wallaga as the Bago, takes a spiral direction, encircling Kaffa like an island, and receiving a great many tributaries in its



course. This is quite confirmatory of the information obtained by Dr. Beke from a Mohammedan merchant, named Omar Ibn Nejat, who expressly informed that traveller that "the Godjeb joins the Abá of Sennaar." At one of the Society's meetings, in December, 1843, Dr. Beke exhibited a map drawn by him under Omar's dictation, in which the junction of the two rivers corresponds in a remarkable manner with the delineation of the upper course of the Bahr-el-Abiad and its affluents in M. Jomard's map. Be it observed, however, that the opinions emitted by M. d'Abbadie and Dr. Beke, being founded chiefly on native information, cannot be considered as satisfactorily deciding the question of the source of the White Nile.\* Indeed so far still is the source of this mysterious river from being determined, that another French traveller, M. Lafargue, who says he has been as far up the White Nile as any of those who preceded him, gives it as the joint conviction of himself and his fellow-traveller, M. Rollet, that the White Nile is no other than a continuation of the Niger (by which M. Jomard supposes is meant a river called the Bahr-el-Esoued, or Black river), thus making the Bahr-el-Abiad to come from the west, while the late expeditions make it come from the south, and M. d'Abbadie and Dr. Beke's informant, Omar, from the east! But it is not to the White River alone that M. d'Abbadie has directed his attention: he likewise visited the source of the Abai, the Nile of Bruce, and determined its elevation by the boiling of water, in the same way as had been done two years previously by Dr. Beke. The results come to by the two travellers so closely coincide that the absolute height of the head of this one of the many sources of the Nile may be regarded as fixed at about 9000 feet (according to Dr. Beke, 8975 feet; according to M. d'Abbadie, 9206). It may be remembered that Bruce estimates it at upwards of two miles, or about 11,000 feet. While on the subject of this part of Africa, I cannot avoid announcing that M. Rochet d'Héricourt has furnished the Geographical Society of Paris with some of the results of his last visit to Abyssinia, where, being well supplied with instruments, he was enabled to make more satisfactory observations than when he first travelled into that country. Among other geographical facts he states

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\* A letter from M. Antoine d'Abbadie to the 'Athenæum,' dated Axum, December 8, 1844, states it as the opinion of that traveller that the White Nile is the true Nile, and not the Bahr-el-Azrek, as is generally believed. If length of course, or only length of navigable course, is to decide the point, M. d'Abbadie would appear to be right, as he asserts that M. d'Arnauld navigated for 840 miles above Khartum, while the Blue Nile has been navigated for only 300 miles above that place; and that at 360 there is a succession of rapids impassable to river-craft. "The very source," he says, "of the Abai is probably not more than 700 miles above the confluence of the two streams." M. d'Abbadie proposes, as the only means of deciding the point, that sections and mean velocities be determined at equal distances from and near to Khartum.

positively that the Lake Zuwai, or Zowaja of our maps, is in no way connected with the Hawath, its outpouring going to the Abai. He has ascertained barometrically the amount of depression of the Lake Assal below the level of the sea to be 217·7 met., or 714 feet, differing only by 46 feet from the depression ascertained by Dr. Beke, who first discovered and announced to us this singular fact, and who took the depression by means of the boiling of water. But to return to M. Rochet: not the least valuable fruits of his journey are the different grain seeds which he has brought from Shoa, some of which, it is to be hoped, may be acclimated in Europe, and thus increase the number of cereales used as food by man.

M. Jomard also, in a pamphlet entitled “*Observations sur le Voyage au Darfour*,” translated by Dr. Peron, from an account given by Cheykh Mohammed-el-Tounsy, of that quite unknown portion of Africa visited by Brown in 1794, but not explored by him in consequence of his forced detention and sickness, discusses at some length the still unsolved problem of the White Nile, and is distinctly of opinion that one of its sources is to be found in Darfour, and others in the south-west. There appear indeed to be many tributaries to the White Nile in its upper portion, but in the present imperfect state of our knowledge regarding them it is quite impossible either to determine their number, and the direction of their course, or to say which is in reality the main stream. Let us hope that the fourth expedition, which M. Jomard mentions as about to be sent by the Pasha of Egypt to the head-waters of the great African river, will do much to clear up the uncertainty that has for so many years hung upon the question of its source.

*Languages of Abyssinia.*—Before quitting this part of Africa I am bound to notice the valuable contributions made by Dr. Beke to its ethnology. He has collected vocabularies of thirteen languages:—1, The Hhàmara, or Agau of Wáag; 2, Falásha; 3, Agáwi, or Agau of Agaumíder; 4, Gafat; 5, Gongga; 6, Kaffa; 7, Worátta; 8, Wolámo, or Woláitsa; 9, Yangara; 10, Sháukala of Agaunúder; 11, Galla of Gúderu; 12, Tigre; and 13, Hárrargie (Hurreeor). They will be found printed in the ‘*Transactions of the Philological Society*.’ They are by no means all equally complete, but great praise is due to Dr. Beke for what he has done; for when we consider what an essential element language is in our determinations of the origin and dispersion of races, we cannot be too grateful to those who allow no opportunity to slip of making us acquainted with the languages and dialects of distant tribes.

MADAGASCAR.—M. Le Guillain, we understand, is gone on a mission to Madagascar, and he has been supplied with instructions for making

observations on the animal and vegetable productions of the island. Several botanical collections have already been made at the island ; but as there is no doubt a great deal yet to be gleaned, and as its fauna presents some remarkable varieties, the result of M. Le Guillain's labours will no doubt present much new and interesting information on the subject in question.

In the bulletin of the Geographical Society of Paris will be found an article on Madagascar by M. Bona Christave, destined to accompany a map of the island, published by the Minister of Marine. The author, after explaining the difficulties which stand in the way of a complete description, physical and moral, of the island, enumerates the authorities whence he has drawn his materials. He then proceeds to describe briefly in succession the nineteen provinces of the island, enumerating their several capes, bays, mountains, rivers, villages, forests, &c., and the islands on their coasts. It is indeed a kind of index to the map. But every thing relating to Madagascar is interesting, on many accounts ; and we anxiously await the publication of M. Eugene de Froberville, who has for a long time been engaged on the geography, the history, and the ethnography of that important island.

WEST COAST.—We have been informed by a letter from Mr. Jamieson of Liverpool that Captain Becroft (Now Governor of Fernando Po) and Dr. King have returned down the Niger from Rabbah, which, in consequence of wars among the native chiefs, is now deserted and in ruins. Hence the mission had not met with the anticipated success. It is intended that two more ascents of the river shall be made ; and that the Congo, and perhaps the Gaboon, will be explored. Dr. King, under whose direction these expeditions are placed, and whose detailed account of the ascent of the Calabar is published in our Journal, will, in all probability, should he, as we sincerely hope, return in safety, draw up an account of his proceedings, with which we may hope to be favoured by Mr. Jamieson, and to which communication we look forward with much interest.

We learn from the bulletin of the Société de Géographie of Paris that the Abbé Boilat, a native of Senegal, educated in France, has returned to his native country, and sent from thence various memoirs of great interest. We notice this the more particularly as, among the several methods that have been proposed or attempted for the civilization of Africa, none has appeared to us so likely to be attended with beneficial results as the instruction of natives, who, returning among their own people, enlighten them as to the beneficent intentions of Europeans in their behalf, and overcome those prejudices and superstitions which result from ignorance : such persons would open and smooth

the way for the traveller, whose efforts would then be attended with much greater success.

M. Raffenel of the French Navy, employed at Senegal, has made a proposal to the government to penetrate into the interior of Africa. M. Raffenel's memoir on the subject has been submitted by the Minister of Marine to the Geographical Society of Paris for their opinion, and the result has been favourable to the views of M. R., who has been furnished by the Society with instructions for his guidance in scientific research. Later accounts, however, say that from the conditions under which M. Raffenel's journey will be performed, it will be nearly impossible for him to profit by those instructions.

ALGERIA.—While the French armies in Algeria are fighting for the possession of the country, it is pleasing to turn our attention to the quiet labours of science, which the French never lose sight of in their foreign campaigns. Thus there has been sent home by M. Don the observations for rain from the 1st January, 1838, to the 31st December, 1845, showing the mean quantity that falls in that part of the world to be 880·1 millimetres.

GREAT DESERT.—Mention is made in the 'Athenæum' of the 7th March of an African exploration undertaken by Mr. James Richardson. It appears that on the 23rd of November, 1845, Mr. Richardson was at Ghadames, in the Great Desert, where he had been residing for three months; and whence, in company with a negro and a Moorish servant, a Ghadameite, he intended proceeding due south, through Ghat, Aheer, Damerghon, and Karnac to Sacatou, the capital of Sudán; and if he should resolve on returning from this latter place it would be by the way of Bornou and Fezzan. His desire, however, was to visit Timbuctu. Mr. Richardson's enterprise is looked upon as foolhardy and desperate. He has been advised against it, but his resolution was not to be shaken. We very sincerely wish his daring enterprise may be crowned with that success of which perhaps we can hardly entertain any legitimate hope.

#### NORTH AMERICA.

We have been favoured this year, by Mr. Edward Everett, late United States Minister at our Court, with a volume containing the Reports of Captain J. C. Fremont's two Expeditions to the Western Countries of North America, the first of which, that to the Rocky Mountains, was already known to us, and has been noticed by your late President; of the other, that to Oregon and California, the Report is much more voluminous, and in all respects more interesting, as it will be found to contain not only a great number of astronomical determinations of

places, but many meteorological observations, independent of the description of the parts of the country gone over and its productions. The volume is accompanied by a large map, in which is laid down the features of the country along the lines traversed in the two expeditions; and there is also a profile of the country from the mouth of the Arkansas to the Pacific.

One of our most intelligent members, Mr. Thomas Falconer, has published a very valuable and highly interesting little work, entitled, 'On the Discovery of the Mississippi, and on the South Western, Oregon, and North Western Boundaries of the United States.' In this condensation of valuable information the reader will find an interesting account of M. de la Salle, whose travels and explorations in North America led to the colonization of the fertile valley of the Mississippi, now the seat of a thriving and extensive population. As regards the Oregon question, it is foreign to our purpose to enter into its political consideration; we will therefore merely state that it is fully discussed in the works of Mr. Falconer and of D. Travers Twiss, D.C.L.

It may be mentioned that the late Rev. Thomas Falconer, of Christ Church College, Oxford, editor of 'Hanno's Voyage,' and one of the original members of this Society, completed, shortly before his death, an English translation of the 'Geography of Strabo.' Arrangements have been made to correct this translation by the excellent Greek text of M. Gustave Kramer. The printing of the first six books will shortly commence, and the subsequent ones will follow as the future volumes of Kramer appear.

*Mexico.*—When we consider the rapid succession of political commotions which have agitated Mexico, we can hardly expect that much attention can have been paid to geography. We are, however, happy to learn that there exists the hope of a better future for that so long distracted region.

A new Map of the Department of Vera Cruz is on the point of being published. It has been constructed by the Military Staff from data furnished by different persons who take an interest in the subject, and engraved in the United States by an inhabitant of Vera Cruz at his own expense. It has just reached Vera Cruz, and will be sent to Mexico before it is made public. Of this map our valued corresponding member, Don Juan de Orbegoso, says he hopes to be able to forward to us a copy.

Not a single work on geography or travels has appeared, and no trigonometrical surveys have been executed or even projected. Nevertheless, some impulse has been given to geographical knowledge, as a military commission for statistics and geography, whose labour had been

suspended for a time, has resumed and continued its operations since last January, and has made some progress in a General Map of the Republic, working at the same time on a Geographical Dictionary, and on the statistics of various departments. Let us hope that this and other the peaceful labours of science may, for the benefit of the Mexicans themselves, and for the general interest of improvement, replace the agitation which has so long convulsed their very interesting country.

## SOUTH AMERICA.

*Brazil.*—We learn from a notice in the ‘*Athenæum*,’ that the Rev. Daniel P. Kidder has published ‘*An Account of his Residence and Travels in Brazil*,’ which work we are told has the great merit of rectifying many of the errors, geographical and statistical, which have been published in works enjoying some reputation.

*Bolivia.*—The Bolivian Government having commissioned a French gentleman to explore the affluents of the River Plate, with a view to improving its navigation, the Minister of Public Instruction at Paris has invited the Academy of Sciences to draw up a set of instructions for the traveller, in order that his explorations may be made generally beneficial to science and to physical geography.

An account of the attempt made, under the directions of the Bolivian Government, to open a communication with the River Plate, by descending the River Pilcomayo to its confluence with the Paraguay, and the failure of the expedition owing to the shallowness of the bed of the river, which was finally lost among extensive inundations, was lately read to you at one of the evening meetings.

*Buenos Ayres.*—From our foreign member, Don Pedro de Angelis, our suspicion is unfortunately confirmed, that the troubled state of the country has impeded the labours of geography as of other sciences; thus our zealous correspondent says that his efforts to make known the geographical and historical relations of the country have been paralyzed by the late political events. He has, however, obligingly favoured us with a collection of documents just published, relating to the mission of Messrs. Ouseley and Deffandis, the result of which has been very different from what was expected.

Some addition to our knowledge of the upper portion of the great rivers Paraña and Paraguay, and their principal affluents, may however be expected from these events, as one of the British steamers-of-war is said to have ascended the River Paraguay as high as the city of Assumption.

## AUSTRALIA AND EASTERN ARCHIPELAGO.

Since our last Anniversary different publications of merit have appeared relating to Australia and the Indian Archipelago, and fresh explorations in the former have been undertaken. My predecessor in this chair, in his Anniversary Addresses in 1844 and 1845, dwelt with peculiar emphasis on the great importance of Port Essington, and strongly advocated an *exhaustive survey* of all those seas, straits, and gulfs, as yet but imperfectly known, of the Great Eastern Archipelago, from the China Seas to Torres Straits, including both; and we have seen, in speaking of our maritime surveys, that to the labours of Captain Sir E. Belcher, Captain Collinson, and Lieutenant Bate, we are already indebted for a very considerable increase to our knowledge of the China Seas, while Captain Blackwood and Lieutenant Yule are diminishing the dangers of the passage through Torres Straits by their accurate survey of those great Barrier Reefs that impede the passage of this direct maritime highway between our important colony of New South Wales and India.

Of Port Essington the importance is indeed great; and if, as we are disposed to believe, a practical overland route, between Sydney on the S., and that part of the N. of the Great Australian Continent, could be discovered, that importance would be greatly enhanced, although the dangers of the navigation along the E. coast of Australia will be no longer dreaded, since the labours of Captains Stokes and Blackwood have shown the facility with which steamers may now effect the passage by keeping *within* the Barrier Reef. 'A Particular Account of Port Essington' has just been published by Mr. Windsor Earl, than whom none has had better opportunities, or more ably profited by them, of acquiring a thorough knowledge of the subject. To Mr. Earl's volume we confidently refer those who would not only learn the history of that settlement, but acquire a knowledge of all its capabilities. Already has a party of enterprising pioneers, under the guidance of Dr. Leichardt, started for the discovery of an overland route from Moreton Bay to Victoria, and great has been our anxiety for their fate, in consequence of the sinister reports which reached us. Happily our fears for their safety have been in part dissipated. A party, consisting of Mr. C. Pemberton Hodgson, and others, went in search of them, and having come upon their trail, followed it to a point in 25° N., and 148° 47' E., *i. e.* beyond the spot where Dr. Leichardt and his party were said to have been murdered or to have perished. Every circumstance met with was indicative of their safety, and perfectly satisfied of this Mr. Hodgson and his companions returned, leaving us in hope of Dr. Leichardt's

final success, though, when we consider the immense distance they had yet to travel over a region perfectly unknown, we cannot be free from all apprehension till we hear of their safe arrival at Port Essington. Other explorations have also been undertaken. Thus of Captain Sturt's expedition, of which mention was made in the last Address, has a report since received been read to you; it describes his route from Morundee to Laidly's Ponds, whence, taking a N.W. direction, he attained to the lat. of  $29^{\circ} 40' 11''$  S., and long.  $141^{\circ} 31'$  E., from which place he has sent back a portion of his people, and intends pursuing his explorations towards the interior.

You have also been made acquainted, through the kindness of Sir Charles Malcolm, with the enterprising journeys of Mr. Scott Russell and his friends, and of their discovery of a large river, the Boyne, and of what they consider the upper course of the Condamine.

In connexion with this subject of Australia, I must not omit to mention the works of M. de Strzelecki, of Mr. Eyre, and of Mr. Braim. With regard to the first, its importance has been deemed such as to entitle the author to the award of one of our Gold Medals; and having already, in carrying out the intentions of the Council by presenting the Medal to M. Strzelecki, recapitulated that gentleman's labours, I need no further dwell upon them in this place.

With regard to Mr. Eyre's work, it contains, in addition to the account of that gentleman's travels in Australia, which were rewarded by this Society, some very interesting ethnographical details.

The work of Mr. Braim is indicated by its title, 'The History of New South Wales, from its settlement to the close of 1844.'

If the interior of Australia presents one of the most interesting of geographical problems, a knowledge of the coasts of that immense island is of primary importance; and accordingly the Government, anxious that they should be accurately surveyed, despatched the *Beagle*, under the command of Captain Wickham, not only with a view to ascertain whether any large rivers emptied themselves into the sea, by ascending which the interior of the country might be explored, but in order to point out the various reefs, rocks, and shoals which obstruct or endanger the navigator's route; to describe the currents and prevailing winds which may favour or retard his progress, and the anchorages, soundings, bays, &c., where he may find a sure refuge, with supplies of water, of provisions, and of fuel.

The vessel, after touching at the Cape, where she left Lieutenants Grey and Lushington, on their way to Australia as inland explorers, reached the W. coast of New Holland, at the Swan River, in November, 1837, from which time to May, 1843, a period of nearly six years, the



Beagle, first under the command of Captain Wickham, and subsequently under that of Captain Stokes, has twice made the round of the Australian continent, affording ample opportunity to her gallant commanders and crews for displaying that skill and perseverance for which the navy of our country is so conspicuous.

Of the Beagle's surveys we have from time to time heard something, but it was reserved for Captain Stokes to be the historian of those labours in which he first took so active a part under Captain Wickham, and which he subsequently himself directed. As it would be impossible, in the very short notice to which I must necessarily restrict myself in this Address, to give even an abstract of the many interesting facts brought to light by the Beagle's surveys, I must content myself with merely stating that from Swan River the ship proceeded to the N. W. coast, the configuration of which had led to the supposition that in this neighbourhood some large rivers disembogued into the sea. Commencing at Roebuck Bay, the coast was minutely examined as far N. as Port George IV. The result of this cruise was the discovery of Fitzroy River, and the addition of a tract of 300 miles of new country to our geographical knowledge. The next scene of operation was the W. entrance of Bass's Strait, after completing the survey of which the Beagle passed up the E. coast, examining on the way various openings and unexplored portions of the coast, and improving the existing charts of the track within the great barrier-reefs. Passing through Torres' Strait, Port Essington was visited; and in the examination of Clarence Strait, the discovery was made of Adelaide River and its S. shore. The coast to the W. was also explored for a distance of 60 miles, and found to be deeply indented with bays and openings. About 100 miles farther to the S. the explorer's labours were rewarded by the important discovery of Victoria River, which was examined for 140 miles from its mouth—a discovery which was likely to have proved fatal to Captain Stokes, and to have deprived the country of one of its most zealous and efficient officers. He was treacherously speared by a native at Point Pearce, and by little less than a miracle escaped with his life, adding one more proof to numberless others of the dangers encountered in geographical exploration. It was while taking the longitude of Point Pearce that Captain Stokes received the wound in his chest from the effects of which he still occasionally suffers.

From Victoria River the Beagle revisited Swan River, whence, after refitting, she examined that dangerous cluster of reefs called Houtman's Abrolhos, and the mainland abreast of it. These reefs, it may be remarked, are, with the exception of the Bermudas, the coral formation the most distant from the Equator. From thence the N.W. coast was

examined from the Forester's to Turtle Island. Of the former group, Depuch Island, one of the most remarkable from its size and the very curious and interesting native drawings found upon its rocks, has already been described in the Society's Journal. After going to Timor for a supply of water, which was not to be procured at this portion of the Australian continent, the Beagle returned to the coast, and completed the survey from Depuch Island to Dampier's Archipelago, and discovered that the long sought for Tryal Rocks were no other than a patch close to the N. end of Barrow Island. Great additions were made to the chart in this neighbourhood, leaving which the vessel sailed for Sydney, touching at Swan River and Adelaide. At Sydney Captain Wickham invalided, and the command devolved upon Captain Stokes, who again carried the vessel along the N.E. coast, making further discoveries and additions to the charts: the most important of the former was that of finding Endeavour Strait not only navigable for large vessels, but being in fact, as Captain Blackwood's more extended survey has proved, the best passage through that part of Torres Strait. The next important feature in this extensive survey was the exploration of the Gulf of Carpentaria, where Captain Stokes discovered two rivers, the Albert and Flinders, the former of which was ascended for about 60 miles, flowing through a rich alluvial country. The remaining portion of the N.W. coast, between Roebuck Bay and Turtle Island, which indeed had never been before seen, was now explored, and found to be a low, monotonous, and uninhabited waste. The country lying at the S. foot of Moresby's flat-top range, which had been erroneously reported to be a fine country, was found, on the contrary, to be a sterile tract. Holdfast Bay and Port Adelaide formed the next portion of the Beagle's labours, which terminated by the survey of the S. coast of Tasmania and the remaining portion of Bass's Strait. This part of the work was very materially expedited by the liberality of Sir John Franklin in lending the assistance of a colonial vessel.

The full value of the Beagle's surveys is more and more appreciated as our colonial settlements in Australia and our relations with the islands of the Eastern Archipelago acquire extension. The passage along the E. coast of Australia, now proved, by the labours of Captain Stokes, to be not only practicable, but perfectly free from danger, together with the survey of Captain Blackwood of Torres Strait, open up a new era in Eastern navigation; and we may predict that ere long this line will be a much-frequented high-road between India, China, and the Archipelago, and Sydney and Tasmania. The so long dreaded passage of Torres Strait presents a free passage, while the fringing reefs of the eastern coast form a natural breakwater, between which and the land steamers may

pursue their course, not only in safety over a distance of 1000 miles, but in the enjoyment of some of the most picturesque scenery.

To Captain Stokes's narrative is added the journal, full of interest, of visits to the islands of the Arafura Sea by that intelligent officer Captain Owen Stanley, who, we have much satisfaction to learn, is about to be appointed to the *Rattlesnake*, for completing the survey of Torres Strait and New Guinea. But, however reluctantly, I must pass on to other objects, merely adding in conclusion my hearty recommendation of Captain Stokes's book. In it will be seen what eminent services have been rendered to our Eastern navigation by Captains Wickham, Stokes, and Stanley, assisted by their zealous officers and men; and while we recommend this work for the sterling value of its information, we cannot refrain from expressing the gratification we experienced from the style and manner of its author, which are everything that can be desired in a work of this nature, and are highly creditable to Captain Stokes's literary acquirements. If anything be wanting to render the work complete, it is perhaps the collection in the Appendix of the results of the several astronomical and meteorological observations that are dispersed throughout the book. The value of the work is greatly enhanced by the beautiful and accurate charts which accompany it, particularly the chart of Bass's Strait.

We cannot leave this subject without adverting to the routes of inland exploration in Australia proposed by Captain Stokes, as indicated on his general map of that country. These routes not only pass over portions of the island of great interest from their position, but are of such a length as to render the success of their complete exploration almost certain.

Returning now to the northward, the first object which fixes our attention is the no less valuable than successful enterprise of one of those extraordinary men who seem fated to achieve more by their own energies and ability than is often effected by a combination of numbers and power. It is in the work of Captain Keppel, entitled '*Expedition of Her Majesty's Ship Dido against the Pirates of Borneo*,' that we learn to estimate the character of Mr. Brooke, while we are taught to appreciate not only what he has already done, but the immense advantages that may accrue from the position in which he has placed himself. Assisted by the powerful influence of the Rajah of Sarawak (Mr. Brooke's present title), and protected by the British Government, whose agent he has been constituted, our enterprising countrymen may settle quietly in Borneo, and derive from its rich, varied, and abundant produce the means of a most beneficial and lucrative commerce, while they extend the markets for our own productions. The discovery of coal in abundance, of good quality and easily procured, at the very spot where, if we had to choose,

we should place it, will prove of immense benefit to our steam navigation of the Eastern seas. But great as are all these advantages of Mr. Brooke's enterprise, they have been rendered available chiefly by the destruction of those hordes of pirates who for so many years have with impunity infested the islands of the Archipelago and obstructed commerce. In the important service of their destruction, Captain Keppel and his brave officers have taken the chief part; and in the narrative from which we glean our notice, we hardly know which most to admire—the eminent services of the gallant Captain, or that retiring modesty which has led him in his narrative to speak so little of himself. The next work I shall mention is the interesting volume of Mr. Davidson, entitled 'Trade and Travel in the East'—a volume which, though made up of reminiscences, is full of valuable information on Java, Singapore, the Dutch settlements, and China.

MISCELLANEA.

1. The subject of a passage across the two Isthmuses of Suez and Panama has been often discussed; and as you are aware, Gentlemen, a great many levels have been taken over different parts of these two necks of land, which, by opposing barriers to direct navigation, compel vessels to make long and often dangerous circuitous voyages. It is not my intention to go into the reasons which have hitherto prevented the adoption of any of the proposed lines, either for canals or roads; but it would appear, in France at least, the subject has not lost its interest, inasmuch as a note has been addressed to the Academy of Sciences on the necessity of revising the levels that have been made over the two necks of land, in consequence of errors discovered in former operations. With regard to the Isthmus of Panama, however, the line of steamers now established from Panama to all the ports of the South Pacific, as far as Valparaiso, will give easy access to those countries to the traveller, whether in search of scientific knowledge or commercial enterprise.

2. We have already alluded to the formation at St. Petersburg of a Geographical Society. We have the additional satisfaction of announcing the establishment of a similar society at Darmstadt; and when we consider the persevering research for which the Germans are remarkable, we may fairly anticipate that while the attention of other countries possessing a large mercantile navy and extensive colonial relations is more exclusively turned towards exploration, the German geographers will devote their efforts to a careful sifting of the immense accumulation of the facts of geographical science already existing, so as to separate the more from the less interesting, and by their juxtaposition and compa-

riſon eſtabliſh data and conſtants of the higheſt importance to an accurate acquaintance with the globe we inhabit.

*Physical Geography.*—The importance of physical geography has frequently been inſiſted upon by former Presidents of this Society: it is, indeed, the baſis of all geography—that upon which reſts the practical importance of the whole ſcience we profeſs to cultivate. To define it is difficult: the great Humboldt himſelf, in his ‘Cosmos,’ inſtead of attempting to do ſo, explains through a couple of pages the objects of which it takes cognizance, and to which it is limited. Many of the facts of physical geography are ſuſceptible of graphical representation, and are thus made to take ſtrong hold on the memory of ſuch as are ſufficiently intereſted in the ſubject to ſtudy theſe delineations. What Mr. Greenough ſaid when he ſo admirably characteriſed the importance of good maps in the ſtudy of poſitive geography, may with equal truth be applied to the ‘Atlas of Physical Geography’ publiſhed by Berghaus, and now, through the enterpriſe of Mr. Alexander Keith Johnson, of Edinburgh, preſented to us in an Engliſh dreſs. Four parts, containing nine maps, have already appeared; and thoſe who have ſeen them will confirm the opinion that, if completed as it is begun, the ‘Physical Atlas’ of Meſſrs. Berghaus and Johnson will not only conſtitute one of the greateſt ornaments to a ſcientific library, but be regarded as an indiſpenſable work to all who would have a correct notion of the great physical features and phenomena of our earth. The beauty of the execution of Mr. Johnson’s maps is commensurate with the intrinsic importance of their matter. When ſuch works are publiſhed for the furtherance of our ſcience, we are happy to announce them with the praiſe which is their due, and we heartily wiſh that Mr. Johnson may reap the juſt reward of his enterpriſe by a large ſale.

While on this ſubject of physical geography, I cannot but regret that we poſſeſs no complete and ſatisfactory work on the ſubject in our language. The ‘Cosmos’ of the celebrated Humboldt, already mentioned, and of which we underſtand a good translation into Engliſh is now preparing, will, no doubt, expoſe the great features of the ſcience in that maſterly and comprehensive manner ſo peculiar to its author. We cannot now ſpeak of it; and when the translation in queſtion ſhall be put within our reach, we ſhall be more diſpoſed to receive the judgments of our maſter with ſubmiſſive reſpect than queſtion their validity. Sound judgment is as much ſhown in the acknowledgment of ſuperior genius as in attempting to diſpute it.

But while we regret the want of maſterly Engliſh works on physical geography, we have ſome conſolation in believing that this ariſes not from want of native talent, but from the comparative newneſs, if I may

use the term, of the science itself in this country. When the facts and important bearings of the science shall be sufficiently known and appreciated, we do not doubt that master minds will be found among us to do it full justice. In the mean time attention must be drawn to it as an important branch of education, and its first notions be rendered popular. With this view, some works of small extent, but of very considerable merit, have at different times been published, to which I would call attention, as highly worthy of it. First among these popular works I would mention four small volumes entitled 'The Earth, the Heavens, the Air, and the Sea,' by the late Mr. Robert Mudie. This work, though evidently written for the young, may be studied with great advantage by men of riper years. The abundance of facts it exposes, and the general considerations which result from them, display a great acquaintance with the subject, and a mind of no ordinary stamp. There are two other small works by R. M. Zornlin, entitled—one of them, 'Recreations in Physical Geography;' and the other, 'The World of Waters:' and still more lately two little volumes have been published by our worthy member Mr. Wittich, under the title of 'Curiosities of Physical Geography.' The ability displayed in these several publications is great; and although there is less of generalization in the latter-named works than in that of Mr. Mudie, they are interesting compilations, and their appearance is a sign of a growing interest for physical geography, which we cannot but hail with pleasure as the forerunners of more important labours in one of the most delightful and important fields of knowledge.

*Elementary works* are too often neglected as beneath notice; we are, however, of opinion, not only that they are of the greatest importance, but that they require, in order to be well digested and really useful, much greater ability than their compilers are apt to get credit for. A great deal in the pursuit of science depends upon the early impression we receive in the study of its rudiments: when these are confused and repulsive they too frequently repress the desire for acquaintance with the subject; but when, on the contrary, they are clear and rendered attractive, they stimulate the wish for information, and thus pave the way for complete knowledge. Such an elementary book has lately been published by Mr. Gilbert, under the title of 'Geography for Families and Schools,' which I have much pleasure in recommending to those of our members who are desirous that their children should be informed on the science they themselves cultivate with such predilection.

*Arctic Expedition.*—The reasons for undertaking another Arctic expedition, and making a further attempt to accomplish a North-West passage, after the several unsuccessful efforts already made, were so

thoroughly explained in the Address of my predecessor in this chair, at the last Anniversary Meeting of the Society, and the route it was to take was so clearly pointed out, that nothing further remains to be said upon the subject. The last information received from the expedition stated them to be at White Fish Island, E. coast of Greenland, in  $69^{\circ} 9' N.$  and  $53^{\circ} 10' W.$ , all well. Pending the result of the undertaking, all we can do is cordially to wish it every success, and that the gallant commander, Sir John Franklin, and his excellent officers and crew, may all return in safety, crowned with fresh laurels. In the mean time we have great pleasure in learning that our enterprising countryman has been elected a Corresponding Member of the Academy of Sciences at Paris, for the section "*Géographie et Navigation*," in the place of M. de Guines, deceased.

*Georama*.—I must not pass unnoticed the Georama which M. Guérin proposes to erect in this capital to enable students in geography to obtain through its means, in a few visits, more correct ideas of the extent of the several regions of the globe, and the geographical relations they bear to each other, than can otherwise be obtained by long study.

The Georama of M. Guérin is an immense hollow sphere, in the centre of which the spectator stands, and looking around him sees every country of the world in its true proportional dimensions and form, and its correct relative position. The value of the Georama was so highly appreciated by the Geographical Society of Paris, that the French Government granted to M. Guérin a piece of ground in the Champs Elysées sufficient for its erection, where it is now open to the public. The French Georama is about 30 feet in diameter; but that which it is proposed to erect in London will be about 60 feet in diameter—a size which will admit of the introduction of more detail and many improvements.

The project of M. Guérin has received the sanction of the names of the President of the Royal Society and many others distinguished in various branches of science.

#### CONCLUSION.

Permit me, Gentlemen, in conclusion, to say a few words on the present state and future prospects of our Society.

The hope expressed by your late President at the last Anniversary, that the Government might be induced to grant to the Society apartments in some public building, is not, I regret, likely to be *at present* fulfilled; as, from a communication recently received from the Chief Commissioner of Woods and Forests, although the value of this Society

is there fully recognised, yet it appears the demand for buildings required for additional public offices prevents any immediate prospect of a purely scientific Society obtaining any which might otherwise have become vacant. We must therefore be prepared, at the expiration of the lease of these apartments next year, to provide others at the expense of the Society's own funds.

In all other respects I may congratulate you on our prospects. The Society is free from debt, and we may fairly hope that the new financial measures which, after ample discussion, you adopted at the late General Meeting, will enable the Council at no distant day again to grant that assistance to explorers which prudential motives had obliged them for some years past to discontinue. The increased accession of members to the Society, on which your President remarked at the last Anniversary, has been maintained, forty new members having been admitted during the past year. Mr. James Alexander has renewed for a fourth time his munificent donation of £50 to the Society—an example which I hope will not be set in vain to those who, like himself, possessing ample means, think they cannot be more usefully employed than in promoting science; and I trust that every member will be animated to endeavour, in the mode most suited to his ability, to strive to increase the numbers and add to the efficiency of the Royal Geographical Society.

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## ERRATA.

Page xlix., line 9, *for* Ancient Italy *read* Upper Italy.

— lxxiv., — 17, — D. *read* Dr.

— — — 18, — Christ Church College *read* Corpus Christi College.

— 49, — 9, — ~~vertile~~ *read* fertile.

— 50, — 28, — ~~differet~~ — different.

— 65, — 31, — ~~extrance~~ — entrance.

— 61, — 1, note, *for* Petis *read* Petit.